

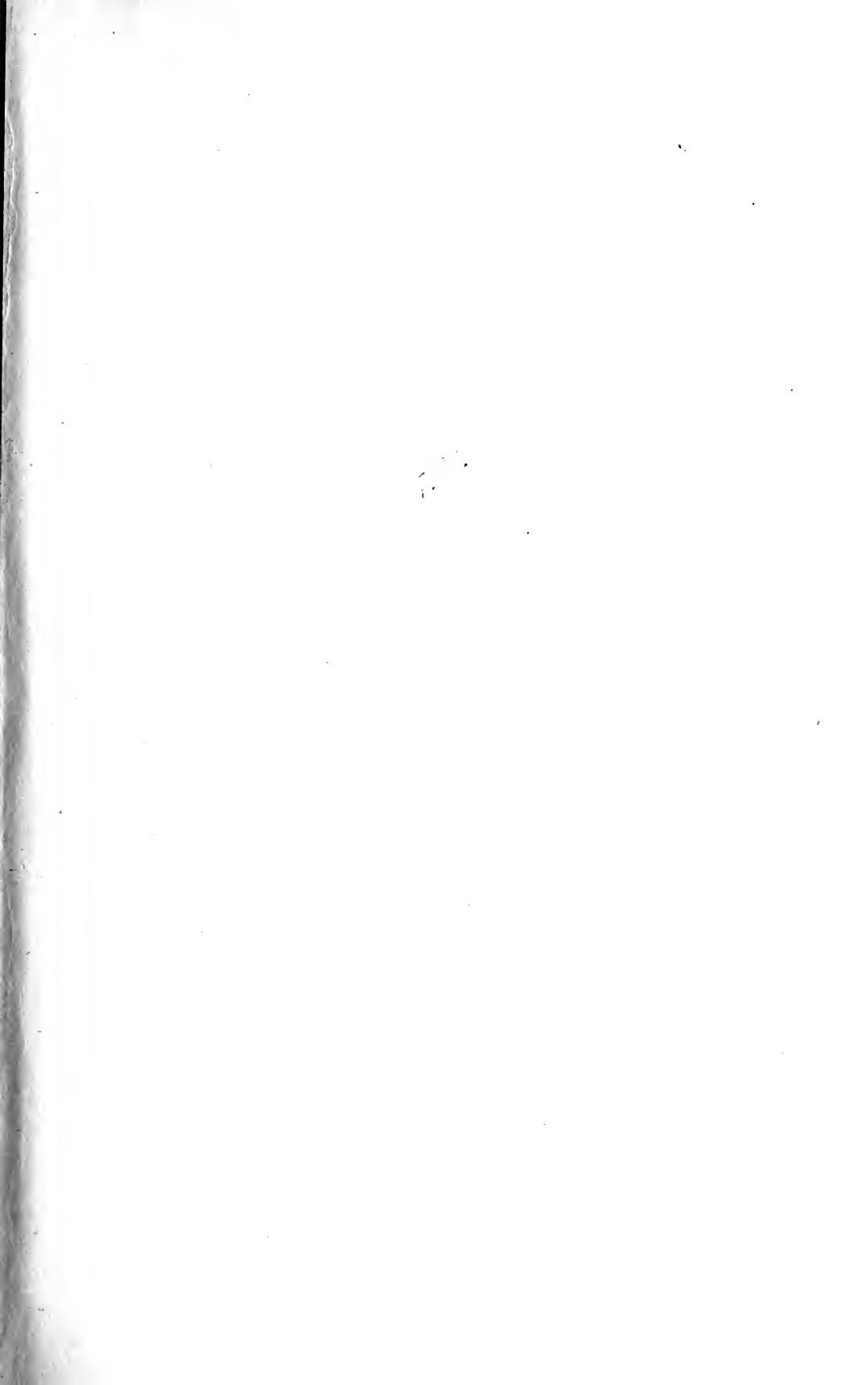
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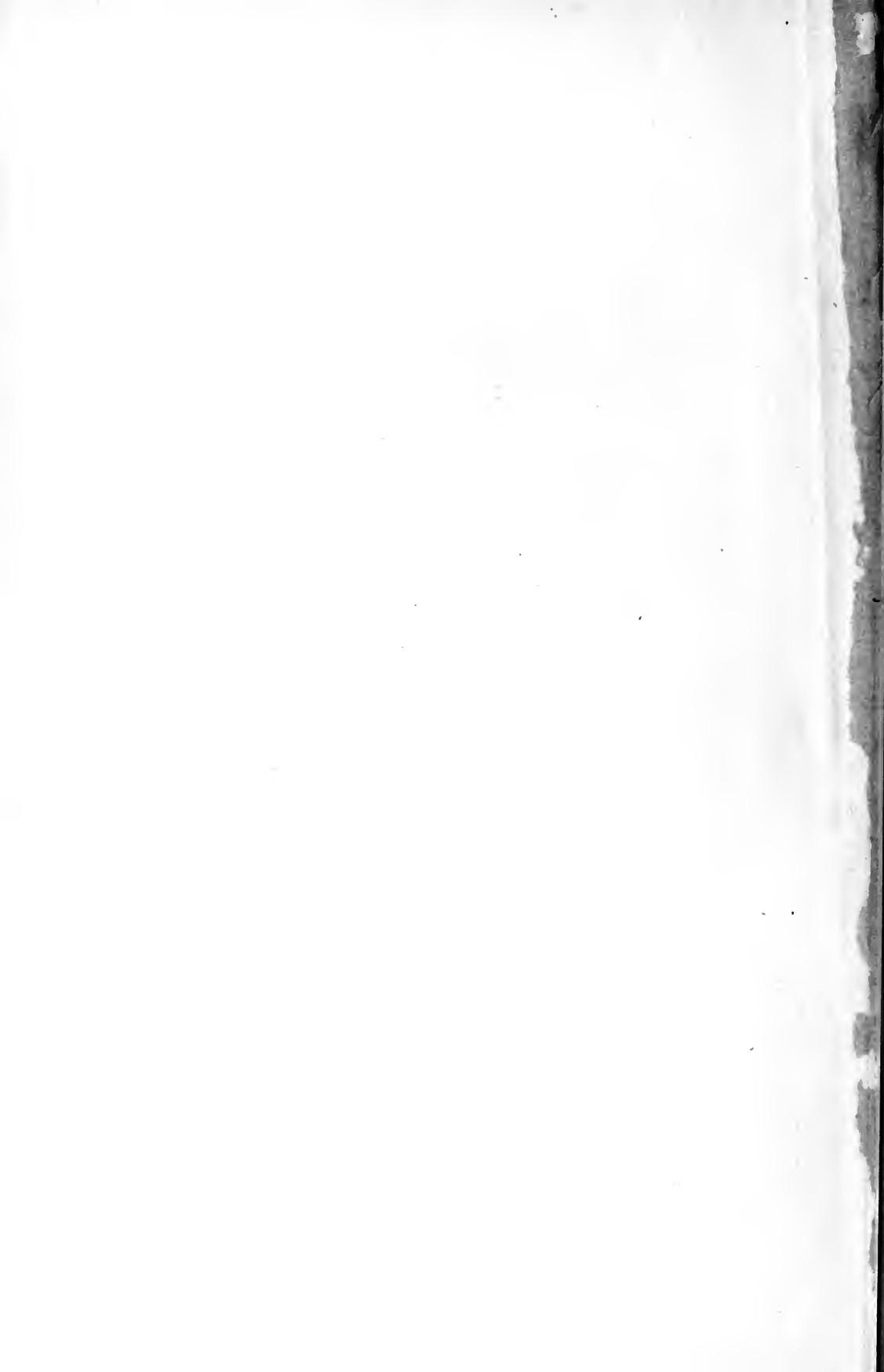


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DETROIT MEDICAL JOURNAL

DETROIT, MICH., APRIL, 1901

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VOL. I.
NO. I.



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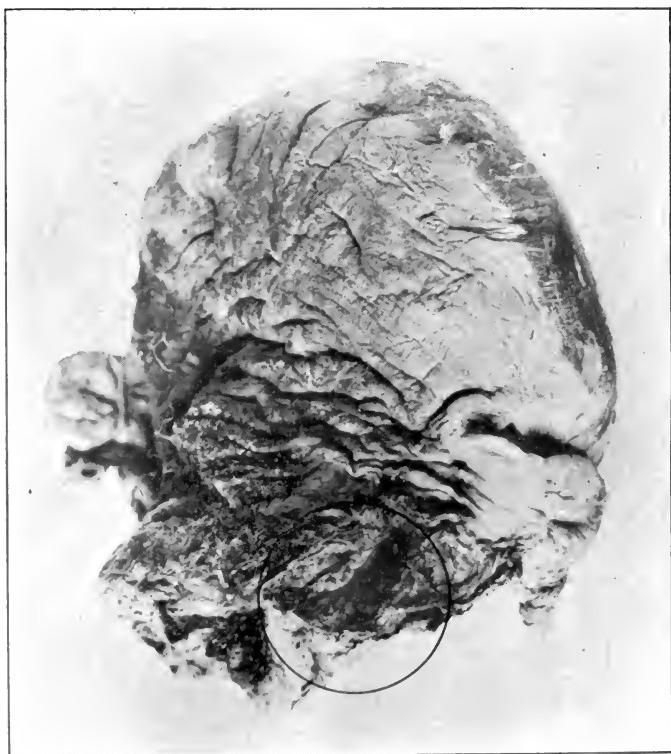
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RUPTURED PARTURIENT UTERUS.

(The rupture is in the centre of the circle.)

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DETROIT MEDICAL JOURNAL

Original Articles.

RUPTURE OF THE UTERUS.

BY W. P. MANTON, M. D.

Writing, in 1835, on the Deficiencies of the Healing Art with reference to therapeutic unsuccess, Dr. Jacob Bigelow states that "The records of mortality attest its frequent failures, and the inability to control the event of diseases gives evidence that, in many cases, disease is more easily understood than cured."

From the days of Smellie—the first volume of whose remarkable treatise on midwifery appeared in 1751, and who dismisses the sujet of uterine rupture with the words: "The rents or lacerations that happen to the uterus are of more dangerous consequence, and indeed commonly accounted mortal; therefore, they demand the utmost care and circumspection, in all the different cases," together with scant directions as to "bleeding" and "spoon-meat" in way of treatment.—to the present time, this appalling accident has been "more easily understood than cured." While the condition was recognized by the Fathers of the art, they mostly agreed in the opinion of Denman (1805), that "there is certainly little chance of any person surviving rupture of the uterus," and

therefore it might be doubted "whether it would be more eligible to suffer the patient to die without giving her further trouble,"—William Hunter looking upon such attempts as "cruel,"—or "hopeless as the case must be," to essay delivery and a cure.

In one of the latest text-books on obstetrics at the close of the nineteenth century, notwithstanding the great additions to our knowledge of the subject, the careful observation of a hundred and fifty years, since Smellie wrote his book, by a host of skilfull men in thousands of confinement cases, with all the advantages of asepticism and the refinement of *technique*, we read the sad confession that rupture of the uterus still "constitutes one of the most fatal as well as most alarming of obstetric complications," while another states that "probably under the best modern treatment about 60 per cent. of the women perish." A mortality of 60 per cent. is either a terrible "attest" to the ineffectiveness of treatment, or, what is more true, indicates the too rapid fatality of the lesion before attempts at rescue can be inaugurated. Death in these cases results from shock, haemorrhage, or septic infection, the patient succumbing within a few minutes, or lingering for hours or even days. In the first instance, assist-

ance is out of the question, the fatal event being almost immediate. Such a case is the following:—

Protracted labor; high forceps delivery; rupture of the uterus; death immediate from haemorrhage and shock.—Mrs. R. B., seen at post-mortem with Doctor W. B. Sprague, to whom I am also indebted for notes of the case: The patient, aged 37, had borne three children, the first sixteen years before. The cervix and perineum had been badly lacerated at this delivery, and when she came under Doctor Sprague's care she was, evidently, also afflicted with a pyosalpinx. She suffered much during the last pregnancy from pelvic pains, and would occasionally have a discharge, which she described as "like matter," and following which she was always relieved. Labor finally set in, a month later than expected, with excruciating, inefficient pains. No progress having been made after a lapse of twenty-four hours, forceps were applied with the head in the superior straight. Some force was necessary to delivery, and the child was born asphyxiated. The uterus contracted firmly after the delivery of the placenta. While the doctor turned his attention to the resuscitating of the child, the husband of the patient held the uterus in firm contraction. Fifteen minutes later, the pressure above the uterus having been removed, the patient suddenly screamed out she was dying; the pulse became almost imperceptible, and in spite of hypodermatics of strychnine and digatalin, pressure over the fundus, and other efforts, she passed away within fifteen minutes from the onset of the symptoms.

On hearing the report of the previous condition and the occurrences at time of labor, I expressed the opinion that the patient had sustained a rupture of the uterus and had died from internal haemorrhage: The autopsy proved this to have been the case. The uterine wall had given way over a space of about two inches, low down in the lower segment on the right side, and haemorrhage into the peritoneal cavity had taken place. (See frontispiece.)

An analysis of this case shows that after a tedious labor the patient is appar-

ently safely delivered by a difficult forceps operation. But the previously diseased and now exhausted uterus proves unequal to the task imposed upon it; overdistention of the weakened tissues leads to their giving way as the child passes through the parturient canal; the uterus makes a final effort to repair the damage, but lacking retractive power, it soon relaxes; blood is poured out through the rent, and in a few minutes, almost without warning, the patient is dead from haemorrhage and shock.

The impotence and ineffectiveness of human skill and wisdom is never more apparent than on such occasions; and the practitioner can only stand by and see his patient perish from the unremediable catastrophe. In those cases, however, in which rupture of the uterus takes place before delivery, with partial or total escape of the foetus into the abdominal cavity, or where the patient survives the immediate effects of the accident, prompt action and skillful treatment will, in a large number of instances, be successful in the saving of the mother's life. But even under these more favorable conditions, there are many factors which will militate against success, and foremost among these untoward elements is septic infection:

Abortion of a decomposed fetus at the sixth month; rupture of the uterus during manual delivery; abdominal hysterectomy; death on the fifth day from septicæmia.—Mrs. L. A., seen with Doctor B. P. Brodie, July 22d, 1899. The patient, aged 23 years, mother of one child, was a somewhat spare brunette, of medium height, and of very active, restless habit. Three months before she was treated for general malaise: She stated at that time that the menstrual function was regular. In June she consulted the Doctor for a profuse, mal-odorous discharge, and received two or three astringent local treatments with decided benefit. As it subsequently appeared, she was at this time about six months pregnant, but so well did she conceal her condition that no one suspected

the situation: No local examination was made at this time. It was evidently her intention to rid herself of the undesired products of conception, for she was constantly doing foolish and risky things. A short time before the date mentioned, she one day rode thirty-five miles on a wheel, took a bath, and danced all of the same night. It is not known whether any direct interference with the uterine contents was attempted or not. She was, however, at the time seen, in a thoroughly septic condition, and the foetus had probably been dead some time.

On the morning of July 22d, the Doctor was telephoned that she was having severe abdominal pains, and his attendance desired at once. It was found that she was in active labor, and Doctor F. B. Tibbals was summoned to administer the anaesthetic during the evacuation of the uterus.

The foetus, entirely rotten and breaking down, was removed in pieces by the fingers; no instrument was used, and no force required to get away the disintegrated remnants. While thus engaged the Doctor was startled by the appearance of a foot or more of small intestine protruding from the vulva. The utero-vaginal canal was at once washed out with a mild antiseptic lotion, the intestine carefully replaced, and the uterus packed with iodoform gauze. It was at this time that I was sent for.

When seen the patient was still conscious, but very weak with a pale and anxious countenance, rapid pulse, and presented all the signs of active internal haemorrhage. Although the conditions were exceedingly unfavorable, it was decided that the only chance for life lay in laparotomy and the immediate control of the haemorrhage. Operation was therefore undertaken after the shortest possible delay.

On opening the peritoneum, the lower abdomen and pelvic cavity were found full of fluid blood which welled up in large quantities from deep below. The intestines appeared dull and lustreless, and a loop of small gut, fully six inches long, was found plugging a rent, about three inches in length, low down in the right side of the uterine wall (lower uterine segment). The liberated intestine was blackish and gangrenous in appearance. An attempt was made to

pass a suture through the uterine tissues to control the bleeding, but the parts were so soft and friable that the ligature cut through on the slightest traction and failed to hold. Forceps were then applied to each broad ligament, and the entire uterus cut away. The vessels were then separately ligated—a matter of great difficulty on account of the softness of the tissues,—the clamps removed, a glass drainage tube inserted, and the abdominal wound closed. Ample drainage through the vagina was also provided for.

Under the influence of moist heat the intestines had so far resumed a healthy appearance that it was considered unnecessary to perform resection. The patient was put to bed in a fairly good condition, with a pulse of 100, and a temperature of 100.4 degrees. During the succeeding days a desperate fight for life was made, but in spite of every effort, including the use of antistreptococcus serum, the patient finally sank and died at the close of the fifth day.

In the foregoing we have another hopeless case; hopeless, not on account of the rupture, but because of the previous septic condition which rendered operation, and every subsequent therapeutic measure employed, unavailing. It is largely due to the two classes of cases, examples of which have been cited, that the mortality of uterine rupture must ever remain high: If it is to be lowered at all, the improvement must come, first from prophylaxis, and second from the immediate recognition of the condition and prompt surgical intervention.

In the total rupture, of which this paper solely treats, the abdomen should be opened as soon as possible, the haemorrhage checked, the cavity of the peritoneum cleansed of blood and clots, and the uterus—except in septic cases where the organs may have to be removed—packed into the rent with gauze, and the abdominal wound closed.

Only by prompt action and skillful treatment in some such manner as that indicated, can we hope to save the unfortunate patient, and improve the statistics

of this deplorable and usually fatal accident.

32 Adams Ave. West.
Detroit, Michigan,

**NINE CASES OF MELANCHOLY TREATED
BY THYROID EXTRACT.**

BY SAMUEL BELL, M. D.*

Space will not, in this brief paper, permit a detailed account of the various mental and physical phenomena in each case. Some suffered from a mild form, while in others the severity was more marked, the indications being that they would pass into a chronic state and eventually be numbered among the hopeless dementes. Nearly all cases had been subjected to other lines of treatment, which seemed to be indicated in each particular case, such as re-constructive tonics, the various forms of electricity, exercise of different kinds, but with very little, if any, improvement. Five cases were very much benefited, and to all appearances, entirely well; their periods of mental depression had passed away, nutrition in general was vastly improved, and a brighter and more cheerful condition took the place of despondency and dejection, to the great gratification of friends and all others concerned. Two of the five have since suffered a mild relapse, while one who did not improve at the outset has since done so, having gained in flesh, and developed a brighter mental condition.

Blood examinations were made prior treatment, and weekly during treatment and subsequent thereto; these consisted of enumeration of the red and white corpuscles and the estimation of the percentage of haemoglobin in each case. The counts were made with the Thoma-Leitz instruments, also by centrifugilization, and the percentage of haemoglobin estimated by Fleischl's haemometer. In normal

blood, in adult life, the average number of red cells per cubic metre is estimated at about five millions for men and four millions five hundred thousand, for women,—the normal number of white cells per cubic metre is seven thousand five hundred. In haemoglobin examinations, one hundred per cent. is considered normal when using Fleischl's instrument.

These examinations were made in order to determine the relative condition of the blood cells and coloring matter in cases of melancholia, accompanied by or without anaemia; also the effect of the thyroid treatment upon the blood.—It is now known that the color of the cheeks, lips, tongue and conjunctivæ is not a true guide to diagnosis in cases of anaemia. In some cases the red corpuscles increased and the white decreased, while in others the reverse appeared to be the outcome of the thyroid treatment; in some, also, the amount of haemoglobin was increased, and in others, lessened.

There are, according to some very reliable authorities, two main theories advanced of action of thyroid: The first is that of Auto-infection—The thyroid gland having for its function the destruction of the natural toxins, and that without the latter we have the condition known as myxoedema: The second is the Internal Secretion theory, the thyroid being considered as a secreting organ: The secretion is taken up by the lymph vessels and is necessary to the proper metabolism of the body, especially for nervous and connective tissue.

According to either of these theories, the administration of the desiccated gland supplies the lacking secretion, which may be some chemical substance that is necessary to health or even life.

Ewald, in a pithy sentence, states that the gland acts as an anti-toxin against certain elements that appear as by-products of tissue change. The exact constituents of this substance have never been

*Medical superintendent of Lakeland Private Hospital for Mental and Nervous Maladies, Grosse Pointe, Michigan.

definitely made known. An organic iodine compound from the sheep thyroid has been extracted, called Thyro-Iodine, and in the present state of our knowledge the weight of authority is in favor of this being the effective chemical agent in thyroid therapy.

The *rationale* of this method is not very clear. It may be of great value in mental diseases as a method of diagnosis, but it is difficult to comprehend just how this treatment could improve a case where degenerative changes have taken place in the cell structures. Based on the theory of auto-infection, frequently cases have occurred where malaria, typhus and pleurisy seemed to develop in the circulation anti-toxins that have resulted in curing cases of mental disease; it is not unreasonable, therefore, to suppose, that in cases of mental alienation due, it may be, to some toxin, rather than to a lesion of the brain, the action of the thyroid is to promote metabolism. This being the case, the utility of thyroid therapy is obvious.

In the series of cases treated by me, it was observed that those who were not benefited were developing symptoms of organic disease, and passing into a condition of chronic dementia; while in those who were improved, it is a reasonable deduction, on the basis of the anti-toxin theory, that the condition was functional, and that cellular disorganization had not taken place.

It was noticeable in some that the minimum dose would produce a systemic effect more rapidly than would a maximum dose in others. Also that every case required close observation and the dose to be graduated in accordance with the effect produced upon the nerve centres and circulation: In other words, every case must be a law unto itself. Fifteen grains *per diem* was the maximum dose to commence with, and in some gradually increased to fifty in accordance with the indications.

The field of thyroid therapy, in the light of our present knowledge, is quite limited; experimental data have accumulated during the last year indicating various results. The most favorable, also the most reliable, given to the International Congress of Medicine, at Weisbaden, were by Ewald, in epileptic psychoses, acromegaly, rachitis and Basedow's disease; also by Bruns, on goitre, of the follicular variety; cretinism was reported on by Schmidt; tetany and acromegaly by Schultz.

Since beginning this series of experiments in cases of anaemia, accompanied, or preceded, by melancholia, I have observed some recent results (some of which were very good) obtained by Doctor Babcock, of the St Lawrence State Hospital, New York, in a variety of selected cases both of mania and melancholia.

Detroit, Michigan.

CANNABIS INDICA AND ITS THERAPEUTICS.

BY DR. G. ARCHIE STOCKWELL, F. Z. S.

Latterly, this drug, in consonance with botanical nomenclature, is confounded with *Cannabis sativa*. While it is true that hemp is simply *hemp*, the world over, the remedial virtues of the plant are greatly modified—enhanced or placed entirely in abeyance—by latitude, soil, climate, and prevailing meteorological conditions: Notoriously the hemp of Europe and America is nearly inert as compared with that grown in India, and here the product of the Vale of Cashmere is recognized as superior to that grown in any other portion of the Orient. It is, therefore, to be regretted, that manufacturing pharmacists, who are governed chiefly by sordid considerations, find it convenient for the most part to follow the botanist rather than the therapist, and thereby evince a carelessness as to sources of supply that is little less than criminal; even the plea of assay, of which so much

is made, conveys nothing, since it has for its basis the amount of "total extractives," and these latter constitute a very uncertain factor, one that is practically valueless, since the real virtues of the plant are, apparently, derived from a volatile principle; and even the so-called physiologic test, as manifested by the action of the drug on Guinea pigs and rodents, offers no reliable guide.

"*Cannabis Indica* has a similar appearance to our *Cannabis sativa*, but the two are very different in properties; and it is remarkable that the former is apt to lose its effective virtues when transmitted to Europe—even the resinous extract prepared in Calcutta was less energetic at London than in India. So, too, the drugs derived at different elevations exhibit great differences in therapeutic properties, and those grown at less than 6,000 feet elevation are practically inert.—HONNIBERGER.

The chemistry of *Cannabis Indica* has never been thoroughly worked out or understood. The resin or *churrus*, according to Egasse, is the active principle, to which he gives the name Cannabin, and this is seemingly born out by the fact that the American- or European-grown drug is sadly deficient in this constituent. The crude Cannabis, as marketed, should be in the form of the dry flowering-tops of the female plant, "Ganjah," rich in *churrus*, whereas the drug as commonly found in shops is often, manifestly, of home growth, since it is even sold in powdered form—good Indian "Ganjah," because of the contained resin, can not be powdered successfully unless it has become wholly inert through deterioration, or is overwhelmingly adulterated with some extraneous matter.

Again, fluid extracts made by percolation, with possibly few exceptions, are practically inert for the purposes for which Cannabis is to be valued. The cheaper fluids have their alcohol recovered and glycerin substituted, whereby they are deprived of most of their medicinal properties, such *churrus* as originally obtained to the drug being lost in the process: So, too, most solid extracts, owing

to the prolonged heat to which they are necessarily subjected, are equally defective. The only forms of extracts, solid or fluid, that can be relied upon with any degree of certainty, even if derived from a good quality of crude drug, are those made *in vacuo*.

The preparations known as Cannabindon, Cannabine alkaloid, Cannabin tannate, Cannabinindon, Cannabine (liquid), are very uncertain in their remedial effects; the most constant of all is Cannabin, the *churrus* before noted, and which is employed in the Orient for the purpose of making intoxicating beverages, to smoke, and to make "hemp butter;" it is also the chief constituent of the Arabic *hasheesh*, Hindu *bhang*, and Mohammedan *majoon*, all of which are practically identical, and likewise contain a portion of stramonium. Cannabis butter is made by boiling together equal parts of *ghee* and clean hemp-tops, and is employed clear, or made up with spices and sugar into bon bons, or lozenges, with the aid of gum tragacanth—an unsuccessful endeavor was made by the late Germain Sée to introduce these latter into medical practice.

As a whole, Cannabis is one of the most reliable of drugs, but as already remarked, is in this country sadly handicapped by the uncertainty which attends most Pharmacopoeial preparations of the same. As it now stands, any given preparation has to be experimented with to determine its real value; there is, however, one thing to be said in favor of the empirical administration of these preparations, namely: While the drug in large doses appears toxic, and in spite of the enormous quantities (relatively) that have on occasions been ingested, either through accident or purposely, a case of death directly referable thereto has yet to be recorded. Some years since the writer, in the interests of therapeutic certainty and uniformity, suggested importation in

sealed tins direct from India of the *churru*, and latterly this form has made its appearance under the title of Cannabin, which seems to be in every way representative of the true virtues of hemp.

Cannabis is anodyne, anti-spasmodic, aphrodisiac, in some slight measure diuretic, besides being hypnotic or soporific, nerve stimulant and oxytocic.

Minute doses are sedative to the spinal centres, and in order to secure the best effects should be administered with great regularity and frequency. Slight contraction of the pupils may be manifested when given in this way, but there is invariably inculcated a feeling of comfort and well-being. In nervous maladies the effects are so pronounced and satisfactory that the drug may be considered largely in the light of a neural-panacea; at the same time the tendency is to steady the action of the heart, hence its value in certain functional cardiac disorders.

In larger doses Cannabis is anodyne and anti-spasmodic, the influence being manifested through the brain and spinal cord.

In full doses the drug is, first of all, a stimulant, inducing increased arterial tension, followed by exhilaration, being ultimately succeeded by drowsiness, sleep, and even stupor that may simulate catalepsy; but the awakening is marked by utter freedom from *malaise*, nausea, head-ache, or other of the concomitants that obtain to the usual administration of narcotics and stimulants. The preliminary effect is more powerful and lasting than that of opium, and the slumber induced is not infrequently disturbed by dreams and spectral delusions.

When smoked, or the fumes inhaled, Cannabis frequently induces singular muscular erythysm and agitation, succeeded by disagreeable hallucinations and stupor; sometimes even when taken internally in over doses, homicidal delirium is developed, hence the application of the

term *hasheesh*, which is derived from "haschashins" or "assassins." During a very brief period in which the sleeper is under the influence, it may seem to him that years have elapsed; again, the constant use of the drug has a marked effect upon the sensory nerves, which is evidenced by numbness and tingling, ushering in cutaneous anaesthesia and diminution of muscular sense. Appetite is generally stimulated, and decided aphrodisia is by no means infrequent.

Nervous Maladies.—In senile insomnia with wanderings, Cannabis has no equal:

An elderly person, perhaps with brain softening, is fidgety at night, goes to bed, gets up, thinks he has some appointment to keep, that he must dress and go out; daylight finds him quite natural again. Here, nothing can compare in utility to the drug in moderate doses.—REYNOLDS (*The Lancet*, London, March 2nd, 1890).

In alcoholic subjects, however, it is apt to prove uncertain except, perhaps, in *mania a potu*; here it is often most satisfactory in its action, resembling more than anything else opium and wine, but is more certain than this combination. In a few moments a great mental change is induced; and the "horrors" are rapidly dissipated, the nerve hyperesthesia quieted, and the patient brought to a condition of cheerfulness. Nevertheless, great discrimination is demanded, for this drug is not applicable to every case of delirium tremens.

In melancholia it is often serviceable by converting depression into exaltation, but here also great judgment is required in administration. In the occasional night-restlessness of paretics, and the "temper disease" of Marshal Hall, it has proved eminently useful; so, too, in migraine, in neuritis, and in neuralgia, it is by far the most useful and potent remedy, even when the malady is of long standing: and many victims of diabolical "sick-headaches," have for months, even years, at a time, kept their sufferings in abeyance by taking a dose of Cannabis immediately upon the first evidence of an attack.

It is somewhat surprising that this remedy has not found more general favor in the management of migraine. The solid extract given in form of a pill in dose of from one-third to one-half grain is often magical in its effects:

When the patient suffers constantly, or is liable to an attack on the slightest provocation, the pill may be taken three times a day, for many weeks at a time, without the slightest fear of any untoward effects. Should the patient not speedily obtain relief, care must be taken to ascertain that the extract employed is physiologically active. Excellent results are often obtained by administration of pills containing four grains of Cannabis tannate, one being given three times a day after meals.—MURKELL (Manual of Therapeutics, 1896).

No remedy is so effective in relieving the lightning pains of ataxia; again, in chronic spasm, whether epileptic or choreic, and in the eclampsias of both children and adults, it is of marked service.:

In brain tumors and other maladies in the course of which epileptic seizures occur, followed by coma, the coma being followed by delirium, first quiet, then violent—the delirium then passing into convulsions, and the whole gamut being repeated—Indian hemp will at once cut short such abnormal activities, even when all other treatment has failed; but in genuine epilepsy it is of little avail.—REYNOLDS. (*The Lancet*. London, Vol. 1, 1890.)

So, too, in tetanus, Cannabis has been found very effective at times, and even when it is not curative, *per se*, it seldom fails to afford some measure of relief.

The usefulness of this drug in allaying any form of morbid nervous irritability has led to the suggestion it might prove beneficial in vaso-motor coryza. Despite the idea is both commendable and rational, the writer is unable to secure any evidence, pro or con, except that afforded by his own experience, and this is limited to three cases wherein the drug was given in small and repeated doses (one minim of a reliable fluid extract, every half hour) in conjunction with sodium bromide (thirty grains every third hour in a goblet of water). The effects certainly were all that could be desired, but the value of the experiment was greatly lessened by the fact the sufferers, after a couple of days, left for a locality known to afford immu-

nity as regards “autumnal catarrh,” and did not return again until the “hay-fever” season had passed. Cannabis, however, both when ingested and inhaled by means of cigarettes, is often efficacious in other forms of catarrh that are accompanied by asthmatic seizures.

Intestinal Maladies.—Indian hemp is still the favorite remedy for epidemic cholera in the Orient, and patients in actual collapse have frequently been revived and recovered by means of a full dose of the drug. If the theory of Alexander Harbin is possessed of a measure of truth—that cholera is a form of neurosis,—it is reasonable to suppose that where its ingestion is possible, and the drug administered in frequent and continuous doses, or it can be administered hypodermically, it will prove highly efficacious. The writer has employed it with almost unparalleled success in cholera infantum, and cholera nostras. “In the epidemic which visited Calcutta in 1838,” says Edward Waring, “Cannabis was used very extensively, and the reports thereon were in the highest degree favorable.”

Doctor O’Shaughnessy (Bengal Dispensatory) declares he knows no remedy equal to it as a general and steady stimulant when given in doses of thirty minims of the tincture during the tractable stage of the disease. “Even a single dose has been known to work wondrous transformation—the pulse and heat returned, and the purging was checked.” It certainly allays vomiting much more effectively than opium, and is not at all likely to lead to cerebral congestion.

Doctor Willemein, of Cairo, in a paper before the Academy of Medicine, Paris, related several cases successfully treated with this drug; in one instance, the patient, who was already collapsed, revived immediately upon the ingestion of the remedy. He adds:

“It seems to stimulate the nerve centres at a period when their influence is all but sup-

pressed, thus actually preventing the extinction of life."—*Medical Times*, London, Vol. XIX.

Rheumatism.—In acute rheumatic disorders, or the multiform miseries of the gouty, there is no remedy with which the writer is familiar, so prompt and efficacious if judiciously administered. It not only relieves pain, but appears to be most effective in favoring the elimination of uric acid. Cannabis, colchicum and sodium iodide, in full doses, constitute a trio that can not be equalled, especially when administered in conjunction with an occasional colocynth or podophyllin pill at night. Modern experience has failed to elucidate anything superior to this old-fashioned treatment, especially when supplemented by Cannabis.

In the chronic forms, though Cannabis has been lauded for both its analgesic and curative effects, it is questionable if it deserves the many encomiums bestowed. This much may be said, however, that while it tends to alleviate pain, and in this way may be a valuable drug, it also increases appetite and inculcates mental cheerfulness.

Cardiac Maladies.—In violent palpitations of the heart the drug is often markedly remedial, especially when the non-utility of all other agents has been proved. The late Doctor Christison, of London, to the end of his long busy life, especially extolled it; he employed it in a large number of instances with unequivocal effect, and by its aid succeeded in relieving a case of twenty-one years' standing.

Respiratory Diseases.—Cannabis is also a capital sedative to the upper respiratory tract, and is a favorite factor in many cough mixtures. It is especially indicated in that form of influenza which is popularly termed "*la grippe*."

Fothergill long ago commended its use in phthisis pulmonalis:

It most perceptibly relieves the cough; it aids by its stimulating and exhilarating quali-

ties, and supplies a place that cannot be filled by any other drug.—Lees (*Medical Record*, Vol. XLIX).

Skin Diseases.—In eczema and other cutaneous disorders accompanied by intolerable itching, the drug gives relief when local treatment does not; but it must be employed in a way to secure its full and prompt effect:

In skin diseases associated with intense itching, particularly senile puritus, when local applications fail to relieve, it is often of great benefit; and, though there are rarely any untoward manifestations, it is best, perhaps, to give at first in small doses, and then gradually increase.—Mackenzie (*La Semaine Medicale*, Nov. 14, 1894).

Digestive Disorders.—In the treatment of gastric neuroses and gastric dyspepsias, as well as other digestive maladies, *Cannabis Indica* is not only one of the most available of drugs, but every way preferable to the opiates in that it does not inhibit (but, instead, increases) appetite; neither does it interfere with the secretions, nor constipate, or check the flow from the kidneys:

It allays painful sensation and improves appetite. It has no action on atony or dilatation of the stomach, but is of great service in promoting stomach digestion where there is hyperchlorhydria; in anachlorhydria it acts feebly. Intestinal digestion is improved by its use.

On the whole it may be considered as a true sedative to the stomach, and it lacks the disadvantages that accrue to all other drugs usually enumerated in this class.—Germain See (*Bulletin Generale de Therapeutique*, July 29th, 1890.)

In anorexia following exhaustive diseases—where there is repugnance and intolerance of food in almost every form, that is not relieved by acids, nux vomica, and bitters—from five to ten minimis of tincture of Cannabis, or one-fourth to one-quarter grain of the solid extract, given three times daily before meals, often brings back the appetite in two or three days. In dyspeptic diarrhoea, and the first months of true tropical fluxes, it is often of great service. Tropical diarrhoea is primarily and essentially a disease of the liver, and mercurials should be administered for their alterative effect, while the Cannabis acts by diminishing the irritability and excessive peristalsis of the intestines.—McConnell (*The Practitioner*, London, Feb. 18, 1898).

Cephalalgia.—Aside from its use in migraine, before noted, this drug has been lauded in the treatment of functional headaches as well as those severe forms attending intra-cranial growths of cere-

bral origin, or where the cephalalgia is dependent on uræmic poisoning:

It is almost a specific for that continuous forms of headache which begins in the morning and lasts all day, the pain being generally dull and diffuse, but marked by occasional exacerbations.—Mackenzie (*La Semaine Medicale* Nov. 14, 1894).

Renal and Urinary Maladies.—In Bright's disease where the urine is tinged with blood, in all forms of urethral spasms, for chordee, and in the acute stage of gonorrhœa, in vesical irritation, and in spermatorrhœa, Cannabis frequently exhibits powers that appear little less than magical:

It has been used in spasm of the bladder, and found a most available remedy in gonorrhœa and chordee.—Butler (*Materia Medica and Therapeutics*, 1896).

Some authors accord Cannabis the highest reputation as a diuretic in acute and chronic Bright's disease, and consider that bloody urine is a special indication. It is said to relieve dysuria and strangury, and to be useful in retention of urine dependent on paralysis from spinal disease.—Ringer and Sainsbury (*Handbook of Therapeutics*, 1897).

Reproductive Organs.—Cannabis is especially available for sensitive ovaries; indeed, it seems sedative to the entire pelvic contents, and it is thus that it acts as an aphrodisiac, by allaying functional nerve irritation and not, as has been supposed, by stimulating erethysm—and yet, the latter effect may be had from intoxicating doses, but is apt to be most fleeting, or else assume in man the form of priapism, and in woman of nymphomania, that is not gratified (much less satisfied) by sexual indulgence.

It exerts a very marked effect upon the reproductive apparatus. In the early stages of gonorrhœa small doses, combined with gelsemium, will subdue the disease much sooner and more safely than the old method of ruining the digestive powers with large doses of copaiba and turpentine. Combined with gelsemium it subdues inflammation of mucous tissue. In spermatorrhœa, in highly nervous subjects, it is especially valuable. It will do good service combined with pareira brava in cases of irritable bladder.—Goss (*Materia Medica and Special Therapeutics*, 1889).

In menorrhagia and other uterine fluxes, Hemp is often invaluable if judiciously employed; and so, too, it may be of

the utmost efficacy in checking an impending abortion. Its power upon the gravid uterus, inactive through inertia, serves a purpose that can be obtained through no other remedy so successfully. It is equally reliable in preventing post-partum haemorrhage, or as a remedy after "flowing" has begun, but requires to be given in full doses, and perhaps fortified with ergot. Here half-drachm or even drachm doses of the best fluid extract may be given, since—strange to say—in such cases it never exhibits its ordinary physiologic effects—there is no excitement, no intoxication, and no tendency to somnolence, only a feeling of quiet, well being, and that the condition is one of perfect safety.

It is very often used in menorrhagia or dysmenorrhœa. Has also been recommended in impotency.—Ringer and Sainsbury (*Handbook of Therapeutics*).

After all has been said, it must be admitted that few practitioners understand the real value of *Cannabis Indica* probably on account (as before remarked) of the inconstant character of the preparations found in shops. The Cannabin (*churru*) and *majoon* imported from India in tin foil wrappers, are usually both uniform and palatable, but unfortunately difficult to procure.

Regarding Liquor Cannabis, for which Doctor Cowan Lees (*British Medical Journal*, Feb. 9, 1895), claims all the benefits, and none of the draw-backs, of the ordinary tincture (by avoiding those extreme exhilarating conditions bordering on intoxication that are sometimes met with): It may be prepared as a strong aqueous extract of the flowering tops of the female plant, and of the usual strength of fluid extracts. It possesses the anodyne and soporific action generally ascribed to the resin, although in a modified degree; has the characteristic odor of hemp; is of a beautiful deep amber color; and, above all, is miscible with other liquids. "It does not interfere

with the secretion of mucus from the bronchial glands, a circumstance which renders it superior to opium preparations."

Detroit, Michigan.

THE MEDICAL LIBRARY.

BY HOMER E. SAFFORD, M. D.

It is a common observation that the number of professional men who avail themselves of the Medical Division of the Detroit Public Library is far short of the number who must be assumed to take an interest in medical literature. To the casual observer, it is natural to believe this neglect is due to a lack of interest, but medical men who have made a practice of using the library as it has been, are ready to aver this is not the potent influence toward keeping the profession away. There are three reasons, at least, why the library did not meet the needs of the busy practitioner, much less those who aim at deliberate and careful research, viz.: Imperfect presentation of material by catalogue: Imperfect arrangement of books on the shelves, and: Failure to present the latest authoritative work on developments in medical science.

From the standpoint of the library management, there existed facts which made a real remedy anything but easy, and on the face of the evidence, the management has, in ample measure, been justified in the seeming indifference manifested towards this department.

An attempt at revival, however, was inaugurated in December last, when the Librarian, through the public press, invited suggestions from the profession as to how the medical division could be made most effective. The matter was also brought before the medical societies, when ample proof was afforded that real interest was not lacking. By the Detroit Medical Society the writer was made one of a Committee to carry to the Library Commission any suggestions which

might be gathered from individual members, and to report what could be done toward placing the library and the profession in closer touch. Later a permanent committee was appointed to carry on the work.

The spirit in which the Library Commission and Librarian have accepted the offer of assistance from the Committee is a source of gratification to the latter, and the hearty support and co-operation of the individuals of the profession, both in and out of the Detroit Medical Society, are further evidence of an active interest which will eventually bring improved conditions.

In calling the attention of medical men to the encouraging prospect offered. I can do no better than to state what is being, or will be done, to remedy the existing shortcomings.

It goes without saying that a ship would be about as useful without a rudder as a modern library without a satisfactory card catalogue. Much time and money was spent in making a card catalogue, but one great fault existed that was overlooked; viz., the entire lack of classification. A card catalogue will be useful or otherwise according to whether or not the individuals employing the same secure what is desired. The trouble here was aggravated by the fact that numerous cross-references referred to each other rather than to books on the shelves, and by the time one had gone over a number without finding a reference to authority, he became discouraged; as a matter of fact, where one needs a catalogue of authors or of subjects many times, he needs but once the kind of cross-references found here. Now if one consults the catalogue he will be able to turn immediately to authors, subjects, or the cross-references, independently of each other. A thorough renovation of the catalogue is in progress, which will require some time, owing to

the change in numbering; but this will ultimately bring greater ease and facility of reference.

Regarding the arrangement of books on the shelves, the difficulty is best explained by saying the system of classification employed in the library generally has heretofore been only in part applied to the medical division. For the purposes of the library attendant who simply wishes to find a particular book, the arrangement was satisfactory; but for the purpose of quickly seeing, by a glance at the shelves, what is the extent of literature available on any particular subject, the classification was altogether inadequate.

In order to facilitate the use of the library to the profession, it seems desirable to present a few of the particulars of the Dewey system in vogue, so far as it applies to medical literature. In the first place the whole of literature is divided into: 0. General Works; 1. Philosophy; 2. Religion; 3. Sociology; 4. Philology; 5. Natural Science; 6. Useful Arts; 7. Fine Arts; 8. Literature; 9. History.

Turning to Subject 6 (Useful Arts), we find it subdivided: 600. General Works on Useful Arts; 610. Medicine; 620. Engineering; 630. Agriculture, etc.

Again, under Medicine we find: 610. General Works on Medicine; 611. Anatomy; 612. Physiology; 613. Personal Hygiene, Gymnastics, Training; 614. Public Health; 615. Materia Medica and Therapeutics; 616. Pathology, Diseases, Treatment; 617. Surgery, Dentistry; 618. Obstetrics, Diseases of Women and Children; 619. Comparative Medicine, Veterinary Medicine.

Thus far in classification the medical library has heretofore conformed in general to this plan; but "since there was no medical expert in the cataloguing department," the more accurate classifying of books according to special subjects and sub-topics had not been attempted. Re-

lying wholly upon the Cutter system of numbering from this point, the alphabetical arrangement left books on widely diverse subjects standing together.

Now, if one who wishes to find quickly where books on a certain subject stand, it is necessary to be familiar with one more step in the scheme of classification, at least in so far as it concerns 616, 617 and 618; they are as follows:

616.0 General works on Pathology, Internal Medicine, Diseases and Treatment:

616.01 *Aëtiology, Germ Theory, Classification:*

616.021 Bacteriology:

616.022 General Pathology:

616.03. Symptomatology and General Practice:

616.07 Diagnosis, Study of Diseases, etc.

616.1 Diseases of the Circulatory System:

616.2 Diseases of the Respiratory System:

.616.3 Diseases of the Digestive System:

616.4 Diseases of the Lymphatic System:

616.5 Skin Diseases—Dermatology:

616.6 Genito-Urinary Diseases:

616.7 Diseases of the Locomotor System:

616.8 Diseases of the Nervous System:

616.9 General Diseases.

616.91 Infectious Diseases:

616.95 Venereal Diseases, etc.

617.0 General Works on Surgery:—

617.1 Injuries:

617.2 Infections and Results of Injuries:

617.3 Orthopædic Surgery — Deformities:

617.4 Surgical Operations:

617.5 Regional Surgery:

617.6 Dentistry—Diseases of the Teeth:

617.7 Ophthalmic Surgery — Diseases of the Eye:

617.8 Otology—Diseases of the Ear:

617.9 Operative Surgery; Appliances, etc.

618.0 General Works on Diseases of Women and Children:—

618.1 Gynaecology:

618.2 Obstetrics:

613.3 Pathology of Pregnancy:

618.4 Physiology of Labor:

618.5 Pathology of Labor:

618.6 Physiology of the Puerperal State:

618.7 Pathology of the Puerperal State:

618.8 Obstetrical Operations:
618.9 Diseases of Children.

I have given this general outline because the classification not only gives a clue to the location of material on the shelves in book form, but any number taken from it will lead one to corresponding subjects in current medical literature by the aid of the *Bibliographia Medica*, a monthly index of periodical and current medical literature. The plan of arrangement of the material thus presented is practically identical with that for library classification.

This brings to consideration of what is being done toward making the medical library a more live, "up-to-date" agency for scientific work. To begin with, the Commission allowed a reasonable amount for subscriptions to medical periodicals; but the committee also asked the privilege of obtaining the more common of these publications, by donation, in order that the money appropriated may be employed to purchase serial literature beyond the reach of the ordinary practitioner. The responses to this effort may be accepted as evidence that the profession is interested in having good library advantages. Many promised to give, and many others to subscribe, to journals, both foreign and domestic, not already on the list; so that it can safely be predicted that between seventy-five and one hundred high-class journals will eventually be accessible. No general canvass of the physicians of the city was attempted, although as many were seen as the Committee's time would permit—doubtless many more journals could still be obtained for the asking. It is to be hoped that any who are willing to help this plan of contribution, will let the fact be known. It should be explained that the plan provides for a periodical collection of the journals subscribed, so that the publication comes first to the subscriber for his own use. The plan

renders this literature a trifle late in appearing at the library; but, for purposes of reference and for files, this is not a serious consideration. It is hardly to be expected that physicians will go to the library to read current medical news; but what they want are the original articles to which abstracts in their own weekly or monthly publications refer.

Another possibility of assisting the medical library is open to all, and many have already signified a willingness to accept the opportunity. This is the donation of as complete files as possible, bound or unbound, of standard medical periodicals. Already there are a number of valuable files of journals, some running back nearly three-quarters of a century, and, were it more widely known, they would doubtless find more general use. For purposes of reference to this class of literature, it would be of great advantage if some one would donate the missing volumes of the *Index Medicus*, especially those appearing during the final years of its existence.

As for books, there are more really good ones in the library than would be suspected from mere casual observation. As I have explained, their arrangement has not been such as to show them by subjects, and the best has often been buried among those that appear (relatively) worthless. A number of good volumes were recently added by the Commission without materially affecting this general impression upon the casual visitor.

It can not be said that the library is in any sense exhaustive, but there is material which should attract every physician, at least occasionally, providing he knows it to be available; and a proper appreciation of this fact by the members of the profession will, in time, bring improvement in existing conditions.

In short, whether you have been able to help in any other way or not, let it not be

forgotten that every one can be of assistance, by employing, even though but occasionally, the advantages offered; the new material in the form of periodicals should be especially useful for case or subject reading. Finally, note that, by the time this paper is published, the medical library will have been equipped with a telephone, by which the busy man may keep in touch with his work as constantly as at his home; this will be supported by funds of the Detroit Medical Society, but is freely at the disposal of all members of the profession; and no doubt, if it proves sufficiently useful, the burden will be gladly shared by those benefited.

Again, let me say, Use the library! If you do not read foreign languages, when you learn of an article in French or German that will serve your immediate purpose, have it translated. But, *Use the library!*

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A FEW WORDS REGARDING INSTRUMENTS.

BY EMIL AMBERG, M. D.

In perusing the various catalogues of surgical aids and appliances, one can not but be struck with the development of mechanics as applied to the surgeon's art: Nowhere can the march of progress be better exemplified. It is apparent, however, that many of the instruments denominated new, are open to criticism, inasmuch as the idea is not wholly original, and the courtesies and rules applicable to such procedures are utterly ignored.

The purpose of an instrument or surgical appliance is two-fold: To aid the senses, and: To facilitate treatment. Again, every would-be inventor should recall the fact that many instruments are merely artificial and modified hands or fingers—for instance forceps, probes and curettes are merely metallic substitutes for the fingers, and hammers are but modified (clenched) fists. Asepsis, also, teaches that only such tools are desirable as can be made effectually and surgically

clean, and that too in the most brief space of time; and as the hand of the operator is, despite the utmost care observed, always to be regarded with suspicion, it goes without saying that certain substitute implements are thereby rendered imperative.

In devising a new instrument or appliance, first of all should be taken into consideration whether one does not already exist that fulfills the purpose the inventor has in view. No mere modification can be accepted as an invention; it is easy to modify and transform, but not always to create *de novo*. A new instrument, therefore can only be regarded as legitimate when it represents an original idea; or possibly when the original idea is supplemented with devices that enlarge its scope and applicability; and in both instances care should be taken that the modification does not add to the complexity of the original device. Too often the attempt is made to so modify one instrument that it shall do the work of two, or more, whereby it is rendered cumbersome and impracticable.

To modify an instrument merely for the purpose of replacing the name of the inventor to the benefit of the person so modifying, is not only illegitimate, but dishonest, and constitutes a most rank form of quackery. For instance, the very useful and necessary pneumatic ear-speculum of Siegle represents an original idea, and modifications are permissible, but not to the exclusion of the name of the original inventor. The least the honest man can do, if his modification is really valuable, is simply to retain the original title, and append his own as author of the modification only.

Finally, the life and existence of a new surgical instrument or appliance is apt to be governed by the same laws as those that apply to other inventions, viz: "Survival of the fittest."

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EXTRACTS FROM THE JOURNAL OF A NAVAL MEDICAL OFFICER.

Panama, March 30th, 1889.—We arrived in Colon Thursday morning and took train for Panama about noon. Ran at good rate of speed, consequently made good time, though we swung around some of the short corners, of which the road is full, in what appeared a very alarming manner. The road is over forty miles long and a great part of the course is along the canal work, but there is no sign of anything doing here. It is exceedingly dusty and warm, therefore we were grateful for the breeze. Panama station is on the wharf, and a tug and consort were waiting to take the passengers on board their respective mail steamers, and the naval officers and the draft of men to the corvette to which they are gazetted, and that lay some four miles away between two islands, or rather, two little peaks or hills that project from the water.

Panama city is somewhat picturesque at a distance, but very dirty and decayed. It has a wall and moat, both very dilapidated; the former, owing to crumbling, is by no means continuous and often leveled to the ground; the latter in many places entirely filled up. This town has an age of only two hundred years. The old city, destroyed I believe, by Morgan, the buccaneer, was situate some three or four miles off, across the harbor, of which only a few ruins remain to mark the spot.

The men-of-war lie so far out that, so far as going ashore is concerned, one might as well be at sea, and our Captain now proposes to go to Toboga Island, a dozen miles further away; but this is no great hardship, for the chief thing is to keep as cool as possible, and I shall be content with one short visit to the city. At the man-of-war anchorage there is usually a good breeze, and though hot below it is not at all uncomfortable on deck under the awnings. The thermometer at 3:30 p. m. stood at 87 in the shade. We send a boat ashore once in two days, but the bumboat comes off daily with fruit and provisions, so that we fare well enough. I have purchased a grass mat on which to sleep, and a pair of grass slippers, which add much to my comfort. Panama is superior to Aspinwall or Colon, and while it may not seem

picturesque to one who has never seen a Spanish town, it is a cool sort of place, very seedy and dilapidated.

April 10th. A rainy, damp, but really cool morning, and we are crawling up the bay from Toboga to our former anchorage.

I was ashore in Toboga, yesterday, which, aside from the simple fact of being *terra firma* I found decidedly inferior in comfort to the ship. Fancy a straggling collection of huts and tumble-down shanties, with a sprinkling of low, Spanish, red-tiled houses hardly more sumptuous than the former in appearance, built along the steep side of an island which rises to the height of something less than 1,000 feet, the hillside either covered by shrubs or cleared into little patches where pineapples are cultivated, interspersed here and there with cocoanut trees. There is no grass, only a red, clayey, conglomerate soil, and a mingled rock-and-sand beach with an infinity of broken bottles: A pitiful hotel and grog shop combined, kept by an Italian, is pompously advertised as "The Hotel Saboya:" A dilapidated, though anything but venerable, little old church with a magnified cow-bell in the tower:—Such is Toboga, the sanitarium of Panama. It lived on the Isthmian canal, and now that the latter has been abandoned, it depends upon the scanty visits of English or American men-of-war, which go there to give their crews liberty. The weather here is somewhat cooler than at Panama, especially in the morning.

April 15th. We received orders by telegraph to proceed to Payta (on the coast of Peru, some seven or eight hundred miles away), said to be a remarkably healthy place, though unattractive otherwise.

Bahia de Caraquez, Ecuador, April 25th.—We are lagging along the coast, surveying, there being a lot of little roadsteads or anchorages between here and Payta which need correction on the charts; as to harbors, there are none worth mentioning. The weather is more comfortable here than at Panama, although almost under the equator. I went ashore yesterday, landing on the beach and walking a short distance into the little town, which has, perhaps, eight hundred people. It is not an old settlement, though there was a town here more than 200

years ago. The river which comes down in to the Bay of Caraquez which (from the sound, though not the spelling, I imagine has reference to ships or carracks) is of some size and called the Chono. The inhabitants are mainly of mixed blood, *cholos*, in which the Indian predominates, and a few white families. The trade here is principally crude India rubber, ivory nuts (such as were peddled on the trains so much a few years ago), cacao, and many beautiful hard woods. The general run of houses are of split bamboo wattled or chinked up with clay, the more pretentious boasting zinc or corrugated iron roofs. Two schools are managed by priests and sisters (Benedictines) from the United States. Altogether, Caraquez is no so forlorn a place as might be supposed, but seems a long way "out of the world."

Off Selango Island, Ecuador, April 27th.—This is one of the little settlements along the coast where we have to stop and survey. We arrived to-day from Manta, where we touched at on our way down from Caraquez—a diligent study of maps and charts became necessary to identify these unheard of places. Guayaquil is the largest place hereabouts, and we are now near the river, up which, some seventy miles in the interior, the town lies. Luckily we are not to go to it, since it is said to be unhealthy at this season. We are still coasting along within three or four miles of land all the way; one or two islands we have passed, and the one here constitutes a sort of shelter for this port, which latter, so far as can be seen from the ship, possesses only a few straggling houses, distinguished by being lifted up on platforms set on piles, I presume because of the high tide. The land generally is high and very broken, though for the last thirty miles, near the shore, it has been rather a low, level bluff, sandy or stratified, with an occasional indentation where, perhaps, a stretch of sand offers a landing place for boats. The constant roar of the breakers is very audible, especially at night, and though from a distance they seem of no height, nearer by they appear more respectable and require considerable precautions to negotiate in a boat, such as putting down an anchor to the seaward, etc. I was fishing from the poop when we came to anchor, but the water is too deep to expect great

piscatory results. Nevertheless, I caught three garfish of exceedingly spiny character, and the last one ran his dorsal fin into my thumb, the fleshy part, constituting a bloody and most painful wound. No doubt, on the numerous reefs and shoals nearby, many fish can be caught, but our boats are all in use for surveying purposes, and there is not enterprise enough on shore to send off canoes; in fact, the people here seem to have little or nothing to sell, not even fruits.

May 3rd. After a good deal of stopping on the way we are at last approaching Payta. The weather is delightfully cool and refreshing, even in the sun, and though Payta is only about five degrees south of the equator one would not imagine, either by temperature or appearance of the coast, that we were within the tropics. There is said to be no vegetation at all at Payta, and though that is probably not literally true, I suppose there is not much trace of any in sight. Inland the hills and mountains rise one range above another, but the sky is never, or hardly ever, clear enough to get a view of the peaks. Although we were near Chimborazo and Cotopaxi we never succeeded in getting a glimpse of either.

We are now in Peruvian waters and approaching the rainless belt, though I believe in Payta it does sometimes drizzle a little. Even further south, however, in Callao, according to Darwin, there are heavy Scotch mists which the people are pleased to call Peruvian dew, and that answer all the purposes of a real rainfall.

We stopped at Manta, at Salango, and at Santa Elena, and the latter place, much to my surprise, proved to have a cable, and the operator telegraphed our arrival and departure.

Payta is a queer-looking place. The shore is a high almost perpendicular bluff of perhaps 200 feet, formed of stratas of sand and loam, evidently raised from the bottom. Here and there, where the profile is exposed, regular terraces are seen, but all with the same perpendicular face. At the foot of the bluff is the town, built mostly on the soil of a lower terrace, or platform, apparently too near the sea for comfort in case of a tidal wave. There are no trees or bushes; not one green thing, even so much as a blade of grass, in sight, so for once there is no exaggeration on that point. The top of the bluff

is, I am told, the beginning of a wide, level pampa, and one has to go some miles back before the foot-hills of the Cordillera are reached. Odd to say, there is a railroad which runs to a place called Piura, which latter is, I believe, one of the old Spanish settlements in Peru. One thing noteworthy is, that all the fresh water used in the town is brought from inland by the novel railroad, which climbs the cliff by a long grade and a tunnel.

To our surprise, postage stamps are scarce, and we nearly exhausted the supply when ashore. Like some other of the Spanish American governments; Peru farms out the sale of its postage stamps to individuals, so that one can never buy any at the postoffice itself. When I sent my first letter ashore at this place (along with a number of others for different officers) to catch the steamer for the North, I got some money changed, then found the postoffice and they sent out to buy the stamps. When the stamps came, great was the consternation; one of the letters required eleven cents, which had to be put on in denominations of ones and twos, and the envelope not a large one. With much labor the necessary number was placed, covering everything, front and back, but the address.

It is likely we shall be here a week or two, and I think of going to Piura, the terminus of the railroad before mentioned, about sixty-five miles distant. The latter is not a large town but, as before remarked, is one of the earliest Spanish settlements, and consequently worthy of a visit; besides the trip will give some idea of the interior. I have before expressed my surprise at finding a railway here, in such an apparent desert, and though I fancy trains run only once in two days, there must be some business to warrant it. I believe, however, the Chilian war has nearly ruined Peru. I met the Chilian Admiral and his wife in Paris, and he appeared civilized enough, but according to what one of our officers, (who was down here at the time) says, the Chilianos conducted the war like savages and the Peruvians were little, if any, behind in barbarous practices.

Let me here remark that I was quite deceived in supposing the coast was formed by a succession of terraces. The optical delusion is perfect, but the supposed

terraces seen in profile are merely long projections or ridges that jut out here-and-there, and in this clear air stand out so as to cause one to lose the sense of distance. Even now I know the facts I can hardly help believing my first impression was true. In fact the top of the bluff, between two and three hundred feet high, is about uniform, and the coast line is on a level. I walked up to this plateau behind the town, which, as I said, is practically on a sort of shelf at the foot of it. It is a strange scene all along the face of the bluff, and the winding track that leads up the perfectly bare soil is like that in a country stable yard. There are deep gullies, and irregular basins or craters which look as if they were due to the action of rain, but this can hardly be since showers are practically unknown. Once at the top, the ground is covered with small stones; at first one would say there was nothing else, yet there are really six or eight different sorts of plants or weeds in flower, besides one or two grasses, which by looking inland, at a distance of a mile or so, give a grayish-green tinge to the earth and apparently afford a precarious living for the few donkeys I saw feeding. The plain is not flat—though the general surface is,—but a little rolling; it stretches back to the foot-hills which I saw only indistinctly, I fancy on account of the dust and sand, for when it blows hard the whole atmosphere has a peculiar lurid yellow color.

There is nothing in the least romantic or interesting in the appearance of Pa-yata, and I fancy few of the buildings are very old, since even the churches, though dilapidated, do not date back a century. The universal style of architecture is the thatched roof, which is good enough for this rainless country, with split bamboo walls; those of more modern character have the bamboo so flattened out and split as to make rather a neat lathing, which is then chinked up with mud or plaster. The best thing about this place is the weather; so good I never saw, and it was surprising at first to see a rainless country, as this practically is. Very often in the morning the sky is overcast, the air perfectly still, and it looks and feels as as it does at home before rain on a May or June forenoon; but in the afternoon the sun is shining as bright as it knows how, and usually a brisk, fresh wind blows from

the land, though the bluff is so high no sea ever gets up in the bay; the only disagreeable thing is when the wind is very high and the air filled with fine sand from the dry plain above. The sun is often very hot, even though there is a breeze; but the nights and mornings are always cool and dry—that is relatively cool, for I suppose the thermometer seldom drops below seventy; considering the latitude is only five degrees south, and that this is on a sea level, this is remarkably comfortable. Further inland, among the mountains, I am told it is much hotter.

Among the things that amuse me as I walk about here is, the extremely different appearance of the cats from those of our own and other civilized countries. They are nearly all of a common white or black color, thin and spindle-tailed to a degree, and though very common and apparently well treated—or not molested,—are distinctly nearer to the wild form; they are far from timid, but look at you when you offer to pet them, with an expression that causes you to change your mind all at once. Their green eyes in their narrow, little, retreating heads, glare steadily at you with an air of mingled treachery and ferocity. Pussy at home would be ashamed to own them for relatives. I saw only one—a yellow cat—that had a mild and tame look, and that was a foreign importation. With this profusion of felines, in the streets are lots of most miserable little curs—imagine a poodle very ragged and kept for a month or two in a sewer and you have a good idea of them. Most abominable of all is a hairless dog of an offensive sort of slate color.

May 16th. I find this place well enough, though there is singularly little to see and do ashore, so far as the town goes. Even the shops are devoid of any attraction, for there is hardly a native product that one could buy for a curio—cheap German and French dry goods, soaps, perfumes, knickknacks, etc., obtain. The British Consul gave me a *huaco* of great antiquity and quaintness; properly speaking a *huaco* is an Indian burial mound, but the name is also applied to pieces of pottery found therein which date back to the time of the Incas. In some parts of Peru they are very numerous, chiefly drinking vessels, and rather small as compared with the common porous crockery denominated “monkeys.”

I walk on the plain above the town now and then, but mostly in the early morning, it being too warm in the bright sun in spite of the breeze. I went for quite a long walk a week ago, but that day also, to my surprise, it rained, thus upsetting all ideas regarding the climate. It was not much of a rain, however, and I understand that it is only once in a few years that such an accident happens. The climate certainly is good, and one is surprised to learn that the coldest temperature recorded in twenty-four hours is only sixty-five degrees. During the slight rain just mentioned, the color of the ground changed, before my weary eyes, from dusty brown to a faint green, owing to the unusual start given to vegetation.

May 24th. I went to Piura on the 21st, returning yesterday after a stay of two nights and a day. It is sixty-five miles by rail, and my ticket cost three *soles* or Peruvian dollars. My seat was first-class in the forward half of a most dingy passenger car. There were not seats for over a dozen, and very like the cheap ordinary car in the United States. The second-class, which communicated by a door open all the time, was much rougher, the seats running fore and aft like a street car, and uncushioned, while the first-class seats had once been leather covered. After a long time waiting, a start was made, and we climbed up onto the *mesa* (literally, table, or table-land) by a laborious series of steep grades. Now and then the engine proves unequal to the task, and sometimes a train even breaks in two; but fortunately no such accident happened on this trip. We climbed along, sometimes creeping on the very edge of the bluff next the sea, sometimes through a narrow, deep cut showing the same condensed sand (or sand fast merging into sandstone), followed by grit and shells that are seen on the surface above. The pampa near Payta is about three hundred feet above the sea, but is not level though hardly needing any grading for the railroad. As we got further on inland, there were occasional patches of grass of a brownish color, visible only when looked at a little in profile, yet long enough to wave in the wind. A town called La Huaca, the first where there is any water, about fifteen miles up, has a river running through the valley below, known as La Huaca.

(Continued.)

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

DR. G. ARCHIE STOCKWELL, Editor.

—ISSUED BY—

THE J. F. HARTZ CO.,
Publishers, Booksellers and Importers.

NOTE.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, at 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., APRIL, 1901.

Editorial.

SALUTATORY.

For adding to the already overwhelming list of periodicals we have no apology to offer. The publisher and editor are simply carrying out an idea, long cherished, of making a Medical Journal exclusively for, and in the interests of, the medical profession—the advertising element being relegated to second place. During the several years this project has been mooted, we have on many occasions received assurances (from those engaged in publishing medical periodical literature) that a journal conducted on the lines proposed can not succeed; that success depends, primarily, upon catering to the advertising element, including that which is only pseudo-legitimate, or else it must be the organ of some wealthy pharmaceutical concern, or publishing house. Finally, with a view to testing the matter thoroughly and definitely, a careful canvass of representative portions of different States, including also the Province of Ontario, was made. To our surprise we received most hearty endorsements on every hand, even from the legitimate advertising element; moreover, pledges of support, and subscriptions, were obtained that, at

this writing, number several thousands, warranting our proceeding with the enterprise. We accordingly, herewith, present the initial number of the DETROIT MEDICAL JOURNAL, which we realize is not without defects such as are incident to the first issue of a new publication; but we pledge these defects will be speedily overcome and eradicated.

The policy of our Journal is to present monthly to the profession, a practical, carefully edited, epitome of medicine and therapeutics, as well as of general medical events. Moreover, it is proposed to manage this periodical in a way that nothing will appear therein, either as literary matter or as advertising, which the editor and publisher can not wholly endorse and vouch for; even book reviews will be based upon the intrinsic merits of the individual publication.

The exploiting of nostrums will, under no circumstances, be permitted—we aim to cater to the profession as a body, and not to the whims and successes of the individual. New and helpful contributions will appear continually, that have not been published in any other journal, and that will not appear elsewhere except perhaps as excerpts; it is understood that a paper once accepted by this Journal is the property of the latter, and that any duplication thereof as regards other periodical publications will debar these columns to the author *in perpetuo*. Our aim is to be fair, honest and judicial toward every one, and to provide exact information,—even our mailing list will be open to the inspection of our patrons when so desired, and we shall always claim a circulation *under* rather than over the real figures. In

other words we propose to publish the Journal on strictly honorable and honest lines regardless of the ultimate result.

It is also proposed to give our readers the greatest amount of practical and reliable information, compressed into the smallest space compatible with a full understanding of the subject in hand: To make a medical magazine of high literary standards, and maintain the same strictly in the interests of those who pay for it—the physicians.—THE EDITOR.

ANNOUNCEMENT.

For some months we have had in contemplation the issuance of a new medical journal possessed of an entirely new policy; a policy already outlined by the editor.

During this period we have made a very thorough canvass of Michigan and Ontario, as well as contiguous territories, and with results most complimentary in the way of subscribers and pledges of support. As a consequence we herewith make our bow to the medical public with the assurance, if these pledges are fulfilled, even to the extent of fifty per cent., that the DETROIT MEDICAL JOURNAL will speedily be enlarged, and at an early date assume a semi-monthly form.

We are sending out an edition of 12,000 copies, and this list we confidently expect to swell considerably ere January 1st, 1902, rolls around.

Our policy is to go direct to the medical man, and afford him truthful and positive information upon all subjects of interest to the profession. We shall not accept any advertising we can not personally vouch for, neither will we give

reading notices, inserts, or indulge in other "clap-trap" such as is only too prevalent in an endeavor to secure this form of patronage. As already intimated, we have picked our advertisements, and the very fact that one appears in this Journal may be accepted as conclusive evidence of our endorsement.

While this may seem one-sided to the advertiser, we believe that in the end it will prove the most satisfactory and beneficial to all parties concerned—hitherto in publications of this kind, the advertiser has obtained a preference to the exclusion of the subscriber. No "axes" will be ground!—Thus, there will be no exploitation of any one product, or series of products, to the exclusion of another, providing both are equal and legitimate; neither will any pharmaceutical house, manufacturing interest, college, society, -pathy or -ism, control—even the publisher is placed upon exactly the same plan as any other advertiser.

While we have not entered into this enterprise with a view to securing pecuniary profit—though of course we will endeavor to make it financially successful—our aim is to give the subscriber what he has a right to expect from his medical journal: To provide exact and reliable information without fear or favor; and above all, to prove the falsity of the claim that is repeatedly made to the effect that a medical journal conducted for the benefit of physicians exclusively can not succeed, owing to the apathy and non-support of the profession. We propose to publish a medical periodical on strictly honorable business lines, such as have always obtained to us as a Physician's Supply House. We have never catered to

anything but the best; have never endeavored to foist patents or other non-legitimate supplies upon the medical profession; neither do we cater to the patient, or indulge in any form of "counter prescribing." Our every effort has been in the direction of supplying medical men with what they want, and to support them in all their undertakings in a legitimate way, and with the very best quality that can be obtained. As already remarked, the same conduct will obtain to the publishing of the Journal.

Finally, to make this experiment a fair test, contracts have been entered into that will secure the stability of the publication for at least two years.

THE PUBLISHER.

MEDICAL ASPECTS OF THE BOER WAR.

Atop of the fault finding on the part of irresponsible critics as to the conduct of the campaign in South Africa, and as to the shortcomings of the British War Office, it is pleasant to turn to the evidence of Sir William MacCormac, who, as every one knows, at great pecuniary sacrifices, nobly volunteered his services and went to the front to aid the sick and wounded.

We learn on the authority of this gentleman, that nothing that prevision could suggest, or that money would purchase, was wanting either as to supplies or equipment. Despite the difficulties of transport, medicines, stores, and comforts of every kind, were always on the spot when required, and in some of the engagements the hospital trains ran right into action.

The wounds made by the Mauser and English bullets were very similar in character, and not nearly so severe as in former wars. As regards mortality, generally as many as ninety-five per cent.

of the cases in the base hospitals recovered, and a large proportion were able to return to duty at the front. Nearly all the hospitals were equipped with X-ray apparatus, and even the Boers employed the same means for detecting the position of bullets.

The chief difference in equipment as between the English and the Boers was, the thoroughness of the former and the practical way in which every article was put to use. Conversely, in matters of sanitation, the latter were very defective; they were in the habit of digging graves in the midst of their camps, and offal and refuse of all kinds were permitted to pollute the trenches. In fact, in the one matter of sanitation the characteristics of the two peoples were most marked: One, notable the world over for cleanliness and bathing; the other equally notable for dirt and abhorrence of water.

The chief lesson taught by the war, viewed from a medical standpoint is, the necessity for great enlargements of the medical corps of all nations, and the need of trained male nurses, instead of, as at present, relying upon details from the combatant ranks. Invariably, these details are largely made up from the idle, vicious and shirking element, one that is most demoralizing, for the better men prefer to be at the front, especially during the active periods of the campaign.

THE DEATH PENALTY.

Just so long as the law of "A life for a life" is accepted by civilized people, the grim question of the means of carrying out the penalty is sure to frequently arise. Personally, we have little sympathy with those who would rob an execution of its terrors, but we do, most emphatically, protest against making public exhibitions of such, or special entertainments with which to gratify the morbid tastes of selected individuals. Already, in this country, two States have adopted electrical

execution, and it is yet too early to draw any conclusions as to the effects thereof on crime *per se*. But it has been reserved for the Japanese to suggest another method, which is perhaps more effective even than the electrical current, and at the same time more free from the reproach of inhumanity. The condemned individual is enclosed in a lethal chamber, and by means of powerful pumps the contained air is rapidly withdrawn, and death at once ensues. Experiments on animals point to the conclusions that this method is wholly painless.

It is obvious that if the principle of the lethal chamber is admitted, there are many methods of making the air within irrespirable.

EDITORIAL NOTES.

The Test of Utility.—

The claim is made that the profession is becoming entirely too scientific, so much so that the line between science and pseudo-science is not sharply drawn; and it must be confessed, the criticism is in many respects most just.

It is pertinent that every idea, every discovery, every experiment, should bear the stamp of practical utility, or when weighed in the balance and found wanting, discarded. As a late writer remarks: "The border line between medical science and medical absurdity is narrow and sometimes unconsciously crossed."

It is well, on all occasions, to pause in an investigation and inquire whether the design that is being worked out will benefit or injure mankind, or prove merely "good seed on stony ground."

Africa's Dwarfs.—

Sir Henry Johnston, who recently visited the dwarf people of the Congo forest, studying their habits and photographing their dwellings, says: "Notwithstanding the ape-like and hideously ugly appear-

ance of these people, they are usually of winning and cheerful disposition. Their dancing is frolicsome, giving a play of pretty movements, but markedly different from the movements of the negroes. Their intelligence is, as a rule, well developed."

The Toad in Therapeutics.—

Doctor T. Lauder Brunton, not long since, before the Pharmaceutical Society of Great Britain, declared that *Phrynine* "has an action resembling digitalis," and added: "It is quite possible that some of these days we may have an enterprising firm advertising essence of toad as being of superlative virtue for the cure of dropsy."

Phrynine is an exceedingly poisonous alkaloid extracted from the cutaneous glands of several species of *Bufo*. It was first brought to the attention of the profession by one Muire, of Brazil; and in connection with the adoption of this drug by the Homœopathic fraternity, a thrilling story is told of how a woman sought to poison her husband—who was dying, all too slowly, from some cardiac disorder,—by putting a toad in his wine. The result was not as expected, for instead of his death being thereby hastened, the sufferer began rapidly to improve and was soon out of danger.

Epilepsy and chorea are claimed to have been materially benefited, even cured, by *Phrynine*.

Argon and Its Accompaniments.—

Since the discovery of this new constituent of the atmosphere, a few years since, four other (previously unknown) gases have been found associated therewith. These are known as Helium, Neon, Krypton and Xenon. Of these Xenon is the lightest and Helium the heaviest.

In the vacuum tube these new gases are very beautiful, Neon being extremely brilliant and of an orange-pink hue, while Krypton is pale violet, and Xenon, sky-blue.

Michigan State Medical Society.—

The annual meeting of this organization will be held in Battle Creek May 15th and 16th. Doctor P. D. Patterson will deliver the President's Address, the subject being "Psycho-Therapeutics." The Surgical Address is by J. H. Carstens; the Address on General Medicine by Samuel Bell; and that on Obstetrics and Gynaecology, by B. D. Harrison.

Papers by the following are also pledged: Doctors F. W. Mann, C. H. Johnston, George Dock, W. S. Anderson, A. M. Campbell, H. B. Garner, H. M. King, V. C. Vaughn, W. F. Metcalf, Hugh McColl, H. O. Walker, T. A. McGraw, Hal C. Wyman, Angus McLean, C. B. Stockwell, A. N. Collins, W. I. Parker, Wm. L. Dickinson, J. A. McMillan, Wm. Fuller, A. S. Rogers, A. W. Alvord, Rush McNair, Daniel La Ferte, H. W. Longyear, J. G. Lynds, C. Henri Leonard, T. E. Sands, R. R. Smith.

Banquets at each of the Sanitariums are proposed, as well as excursions to Gull Lake and to the various Battle Creek manufacturing enterprises.

A New Fruit.—

There is every reason to suppose that before long a most delicious fruit, new to America, will dominate our markets; already a few specimens have found their way to the seaboard cities. This is the mangosteen—native to the Moluccas and extensively cultivated in Ceylon and Java, and latterly introduced to Jamaica and other portions of British West Indies. It is about the size of a small orange, spherical in form, and when the rind is removed a juicy pulp, "white and soluble as snow" is revealed, possessing a most delicious flavor—something like a nectarine with a dash of strawberry and pineapple combined. It promises, in a few years, to supersede the orange in popular favor, and attempts are already being made to introduce it into the Southern United States.

American Medicine.—

We welcome the initial issue of this new and independent medical weekly, published in Philadelphia under the editorial auspices of Doctor George M. Gould, whose name alone is a guaranty that only the best will obtain to its columns. We certainly wish it the abundant success that it deserves. Such a weekly publication has long been needed,—one, the tendency of which is to elevate medical journalism and maintain at a high standard.

Mr. H. D. Reynolds will have charge of the business end of the enterprise, and with the push, courtesy and vim he brings into the management, will undoubtedly make thereof a success.

A Curious Insect.—

In his entomological researches in the Malay Peninsula, Mr. Nelson Annandale discovered what he is pleased to term a "lantern fly," which is remarkable for its sudden leaps, especially as it is entirely devoid of wings. One day in examining a specimen he discovered a curious projection at the front of its head—"a kind of nose with a crease in it"—which proved to be the source of movement. When this pseudo-nose was turned back under the abdomen and suddenly released, it sent the insect flying.

An Old "Chestnut."—

Every little while the same precise idea is plucked anew from the "rubbish heap" and made to do duty again, regardless of its truth or applicability. Half a dozen years since an item went the rounds of the medical press to the effect Tincture of *Capsicum annum* topically applied, will instantly cure a black eye. It is now in the midst of its third or fourth cycle.

Plant Names.—

Doctor A. B. Lyons has recently published a complete list of plant names and synonyms.

Items and News.

A Good Beefsteak.—

"After the soup, we had what I do not hesitate to call the very best beefsteak I ever ate in my life. As I write about it now, a week after I have eaten it, the old, rich, sweet, piquant, juicy taste comes smacking on my lips again; and I feel something of the piquant sensation I then had. I am ashamed of the delight which in the eating of that piece of meat caused me."

"G. and I quarreled about the soup; but when we began on the steak, we looked at each other and loved each other. We did not speak; our hearts were too full for that. But we had a bite, laid down our forks, looked at each other, and understood each other. There were no two individuals on this wide earth, no two lovers billing in the shade, no mother clasping her baby to her heart, more extremely happy than we."

"As you may fancy, we did not leave a single morsel of the steak; but when it was done we put bits of bread into the silver dish and wistfully sopped up the gravy. I suppose that I shall never in this world taste anything so good again."—THACKERAY.

Mosquitoes and Yellow Fever.—

As a result of the recent yellow fever experiments a campaign of extermination has been undertaken in Cuba. Forty inspectors are to report all the breeding places of mosquitoes, and petroleum will be poured once a month upon all such pools.—*Maryland Medical Journal*.

[It is notable that "yellow jack" never spreads to the Southern piney woods, a fact that was long attributed to some balsamic influence of the prevailing arboreal growth. Now the claim is made that the absence of the mosquito from these regions is the real cause. Be this true or false, an apparently corroborative fact remains that, while the yellow fever infection seems to sometimes survive a cold winter, it disappears with the advent of even a slight frost, which is at the same time fatal to the insect.—Ed.]

Action of Cold and Heat.—

It has long been known that, after a purgative, exposure of the surface of the abdomen to cold is likely to induce colicky pain. Conversely, many people who, on slight cause, suffer from acute diarrhoea and cramps, have found that protection of the abdomen is effective in reducing the frequency of attacks. People living in the tropics, where diarrhoea and dysentery are always rampant, wear a woolen binder about the abdomen ("kammerband"), as a means of reducing the danger from these diseases; so true has this been found, that the British Army authorities furnish troops serving in the tropics with flannel binders. There is a definite relationship between exposure of the surface of the abdomen to cold and damp, and the production of diarrhoea, either mild or severe. The relief afforded by the application of external heat in intestinal colic is well known.—*British Medical Journal*.

Asepsis of Hands.—

The physicians who from time to time views his own hands in the mirror of the culture-tube will attain a well grounded knowledge as to whether he is clean or only thinks himself clean.

Every chemical put upon the skin becomes a scientific fertilizer for the bacterial field. The less chemical disinfection we use upon living material, so much better must be the chances for an absolute sterilization.

It has been conclusively proved that the hands and skin cannot be rendered sterile by dipping, or immersion, in any of the disinfectants now known.

On the other hand, an examination of every method which has received any share of approval has, either in the beginning or at the end of the process, included the use of soap as an important part of thereof.—*Exchange*.

Origin of Leprosy in Hawaii.—

The introduction of leprosy to the Sandwich Islands was under the special protection of royalty and aristocracy. It first appeared in a chief, Kakaunohi, who had been to China, and from him was transmitted to one Naea, who was also closely related to the reigning family. From the latter it quickly

spread to his retainers, and for a considerable time was known as the "*ma'i alli*," or royal disease. The missionary physicians soon learned to recognize it, and Doctor Dwight Baldwin filed a report thereon with the minister of the interior. So long as the Hawaiian monarchy existed, the segregation of lepers was very imperfectly carried out, owing to interference in high places. Since the overthrow of the monarchy, however, the measures have been more effective, though the isolation law is still an unpopular one with the natives.—*Honolulu Commercial Advertiser*.

XIX Century Credits and Debits.—

The XIX century received from its predecessors the horse; it bequeathed the locomotive and motor car:

We received the goose-quill, and bequeath the typewriter:

We received the scythe and bequeath the mowing machine:

We received the hand printing-press, and bequeath the perfecting cylinder press:

We received the painted canvas, and bequeath lithography, photography and chromo-photography:

We received the tallow dip, and bequeath the electric light:

We received the beacon signal-fire, and bequeath the telephone and wireless telegraph:

We received sunlight, and bequeath Roentgen rays.—*Answers*.

Confectionery As An Army Ration.—

The Germans, as the result of extended experiments, ten years ago introduced candy and chocolate into the diet of their soldiers, which greatly conduced to their health and endurance. The British next followed this example: Confectionery and jam has found great favor with the British War Office, and 1,450,000 pounds of the latter alone were dispatched to South Africa as a four months' supply to 116,000 troops. The United States is following in the same path, and confectionery has been added to the regular army ration, consisting of mixed lemon drops, chocolate creams, cocoanut macaroons, and acidulated fruit drops, packed in tins especially designed to fit the pockets of a uniform coat.—*Dietetic and Hygienic Gazette*.

Fads in Food.—

It has never been demonstrated that fish and other so-called phosphoric foods can appreciably improve the brain and mind. Fishermen, for example, and fish-mongers, who live largely upon fish, have never shown themselves to be in any measurable degree more intellectual than their neighbors; indeed, it may be plausibly argued that they are a little less so. The truth is, that particular diet which best agrees with the individual, and which best maintains his general health at a high level, is the best for the brain and every other organ of the body, as well as for the whole man. Common experience has long ago formulated the saying that "What is one man's meat is another man's poison." Science now comes forward to tell us exactly the same thing, and to impress upon every one of us the necessity of finding out the diet best suited to ourselves, and sticking to it.—*The Hospital*, London.

Anti-Diphtheritic Serum in Measles.—

Neiter and Larrier of Paris administered anti-diphtheritic serum in 855 cases of measles in doses of two-and-one-half drachms—nurslings only received one-half the amount. Twelve of the children had diphtheria when admitted to hospital, and fifteen others developed the malady despite the injections. Ten cases of diphtheria developed in from four to twenty-one days—at the time when the serum is supposed to act as a prophylactic.

The preventive action of the serum appears to be especially weak against localization on the conjunctiva, for of nineteen cases, twelve had primary diphtheritic ophthalmia. Most of the patients attacked with diphtheria died in spite of the serum.—*Pediatrics*.

Japanese Courage.—

When the allies lay under fire, in front of Tien-tsin, the Japanese held two rows of huts along the South Canal; between these rows was an open space commanded by the Chinese fire. A soldier was started with a verbal order across this dangerous zone; within thirty yards he fell, shot dead. Another instantly dashed out with the message, only to meet the same fate. Like clock-work a third ran out, and there was a roar of cheers from the allies as the brave Jap made the trip in safety.—*The Youth's Companion*.

Simplified Asepsis.—

For washing the hands or cleaning instruments during an operation, sterilized water or saline solution should be used—Sodium chloride is made sterile by melting in a crucible. The hands ought to be dipped in the solution very often, and wiped with a sterile compress; if they are not washed during an operation, the sweat glands render them septic. Alcohol and ether should never be used. The patient's skin may be washed with soap and boiled water, then with saline solution, and dried. Silk should be employed for sutures exclusively, catgut only exceptionally.—TERRIER.

Solanine in Potatoes.—

The very young shoots and berries of the potato plant—*Solanum tuberosum*—have repeatedly proved poisonous on account of the large quantity of solanine which they contain: potato tubers which have begun to sprout and shrivel are poisonous for the same reason. Normally, raw peeled potatoes contain during the months of May and June from 0.06 to 0.064 mille per cent. of solanine. In sprouting tubers, the skin, and the parts adjacent, contain a quantity of the alkaloid; the more central parts yield practically none. Bluish, waxy potatoes contain more than mealy ones. Prolonged boiling destroys the poisonous substance.—*Treatment*.

Normal Solutions.—

A normal solution is one in which the basic ingredient exists in the proportion of its molecular weight in 1,000 parts of water. Sodium hydroxide, for instance, has the molecular weight of 40, hence a normal solution of the substance contains 40 parts of the salt in 1,000 parts of distilled water. A centinormal solution contains one-hundredth, and a decinormal one-tenth of the amount.—*Chemist and Druggist*.

Sterilization of Thermometers.—

Drop a small quantity of forty per cent. solution of formaldehyde on the cotton at the bottom of the case. The gas is readily liberated from the solution, and the thermometer case being nearly air-tight, the evaporation of liquid is practically nil. Before using always rinse in water and dry thoroughly.—W. H. DYER.

Book Reviews.

The Practice of Medicine. By H. C. Wood, A. M., M. D., LL. D., and Reginald H. Fitz, A. M., M. D. Cloth; 8 vo.; pp. 1,088. Price, \$6.00. J. B. Lippincott & Co., Philadelphia.

It is a delight to pick up a work devoted to the practice of medicine which, instead of being a mere collation, is wholly original. This is but the second or third medical book of this precise character that has appeared in the United States during more than a quarter of a century. The volume is the outcome of an attempt to view the practice of medicine simultaneously from pathologic and therapeutic points of view, and it is at the same time concise, practical, and most readable.

The section on Nervous Diseases, and the articles devoted to Diseases of the Muscles, Infectious Diseases, Acute and Chronic Poisoning, and all the Therapeutics, are from the pen of H. C. Wood. The remainder of the volume, including such topics as Diphtheria, Dysentery, Tuberculosis, Leprosy, Syphilis, Diseases of the Blood and of the Ductless Glands, Parasites, and the sections on the Circulatory, Respiratory, Digestive and Urinary Systems, (excepting the therapeutics) are from the pen of Doctor Fitz.

While each author has thus written certain determinate portions of the work, consideration and discussion of the various subjects have been so carefully joined that there is a common responsibility, except, the very few places where final difference of opinion is indicated in the text by initials, or by the use of the singular instead of the plural pronoun.

A work of this character has long been a desideratum, and authors and publishers alike are to be congratulated most heartily on the complete success attained in endeavoring to provide an original text book that is truly worthy of the title.

An American Text Book of Gynaecology. Edited by J. M. Baldy, M. D. Cloth; royal 8 vo.; pp. 800. Price, cloth, \$6.00; sheep, \$7.00; half Russia, \$8.00. Sold by subscription only. W. B. Saunders, Philadelphia, Pa.

In this volume all anatomical descriptions, excepting those essential to a clear understanding of the text, have been omitted, illustrations being depended upon solely for elucidation. The work is thoroughly practical in its teachings, constituting a text-book alike for physicians and students. A clear line of treatment is laid down in each instance, and the

operations recommended are fully illustrated, so that the reader cannot fail to grasp the idea. All extraneous matter and abstruse discussions have been carefully excluded, and the subject matter been brought fully up to date at every point. The work presents the combined opinions and experiences of ten specialists. The illustrations are chiefly original, selected from the authors' private collections.

The Badminton Magazine. Price, 30 cts.; \$3.00 per year. Wm. Heineman, London: International News Co., New York.

The March number of this most excellent periodical presents a most attractive table of contents.

"The Tiger Charm," is by A. Perrin; "The Keeper's Rounds in Winter," by Darby Stafford; "Big Game Shooting and Exploration in Rhodesia," by Wm. Van Ness, F. R. G. S., with illustrations from photographs; "A Sabbath Day's Journey in Thule," by Hon. A. E. Gathorne-Hardy; "Where Three Rivers Meet," by Mrs. Arthur Kennard, with illustrations from photographs; "Bridge vs. Whist," by Archibald Dunn, Jr.; "After Musk Oxen," by George Orsted, with illustrations from photographs; "The Berkshire 'Feaste' Forty-five Years Ago," by Percy Longhurst; "Shooting Geese from Pits," by C. V. A. Peel, with illustrations from photographs; "Whaling in Skye," by E. Snow Fordham; "Sport in Western Pyrenees," by A. R. Whiteway; "A Bobbery Pack," by H. R. Heatley.

There are also four full page colored plates, any one of which is sufficiently artistic to be worthy of a frame; these are the "Tiger Reared and Sprang;" "Just Missed"—two fox terriers have reached a hole at the foot of a tree which has just been vacated by a rabbit, which is seen disappearing in the glade; "The American Woodcock;" "Ambush II," being one of King Edward's famous racing stud.

In the prize competition of January for the best photograph of a sporting subject, there are no less than fifteen entries, each admirable in its way; the question is how the committee is able to decide where the excellencies are so evenly balanced.

The Science of Homœopathy. By Charles J. Hempel, M. D. Cloth: 8 vols.; pp. 180. Price, \$1.50. Boericke & Tafel, Philadelphia.

This volume is of especial interest in that it is, perhaps, the best résumé of Homœopathy and its professions extant, its author being one of the ablest exponents thereof, and at the same time one of the most noted of its teachers. Homœopathic Law from the Standpoint of Vitalism;" "Inquiry Into the Possibility of a Scientific Classification of Drugs;" "Inadequacy and Unreliability of Chemical Analysis in Determining Therapeutic Powers of Drugs;" "Homœopathic Law of Cure as a Cosmogonical Principle;" and "Pathogenesis and Pathology of Correlation of Artificially Developed Drug Diseases and Natural Maladies," are the subjects treated.

Therapeutic Brevities.

Evidence of Diabetes.—Cramps in the lower limbs occur in 21 per cent. of cases of diabetes. They are rare in the daytime, most common at night, or during the night, and very painful, although not of long continuance. Though confined for the most part to the muscles of the calf of the leg, they also manifest themselves in other leg muscles, especially the *extensor longus pollicis*, by which the great toe is very painfully drawn up; less often in the *extensor longus digitorum*. Connected with these spasmodic symptoms is another sign, which the patient does not feel, and which is therefore not known to him until pointed out, i. e., a painless twitching of the leg muscles, observable mostly in the early morning after a good sleep, and lasting two or three hours, but passing away during the day. In some cases these movements, which are most marked in all the *gastrocnemii*, will be so rapid that as many as thirty or forty of them may be seen during a minute.

When either cramps, or painless motions of the kind named, present themselves, the urine should be examined for sugar!—UNSHUL (*The Asclepiad.*)

Causes of Death in the New-Born.—Recently, studying the cause of death in new-born children, in a number of autopsies I made cultures from the liver, spleen, kidney, and the heart-blood.

I believe that in the majority of cases of haemorrhage in the new-born the condition has an infectious origin. In one case, dying from haemorrhage into the right suprarenal capsule (with subsequent rupture into the peritoneal cavity, the bacteriological examination was negative. While it is probable that haemorrhagic disease of the new-born is commonly of an infectious nature, it is unquestionably true that there are other ways of accounting for the isolated haemorrhages into the suprarenal glands; The location of the organ, the richness of its blood vessels, especially its veins, the proximity of the inferior vena cava which receives the blood almost directly from the gland on the right side, are probably indi-

rectly responsible for the majority. It is easy to understand how, during labor, pressure can be brought to bear upon the suprarenal glands located, as they are, between the liver anteriorly and the vertebral column posteriorly, thereby giving rise to congestion of the vessels of the glands which, in some instances, may result in haemorrhage.—HAMILL (before the Philadelphia Pediatric Society.)

Night Sweats.—The drugs which have hitherto played the chief role in relieving this condition are, camphoric acid and agaricin. Late investigations show these are surpassed by tellurate of sodium, but this possesses a very repulsive garlic-like odor, which will probably militate against its extended use.

The dose is eight grains, given in the evening. As the drug possesses antiseptic properties, it will possibly prove effective in ameliorating the severe pulmonary symptoms. It is said to prove equally beneficial in other diseases characterized by abundant excretion or perspiration, such as rheumatism, typhus, nervous exhaustion, etc.—*Dietetic and Hygienic Gazette*.

Irritable Bladder in Women and Children.—

All pelvic changes should be treated and regular evacuations induced, preferably by enemata, since cathartics tend to increase vesical tenesmus. Urethral caruncles likewise should be removed, and fissures cauterized with silver nitrate. Catarhal urethritis yields to the direct applications of astringent solutions. Hyperaemia may be treated locally by irrigations of one per cent. solution boracic acid. In peri-cystitis the adhesions may be gradually stretched by bladder massage. Endoscopic examination is also to be recommended for children suffering from enuresis and irritable bladder. When the patient is very young, sitz baths may be employed once or twice daily, and will be found very effective, especially if the consumption of fluids during the latter part of the day is restricted, the evening meal a light one, and sleep enforced without a pillow to the head—if necessary, the foot of the bed should also be elevated.—BIERHOFF (*Jacobi Festschrift*.)

Stiffened Joints.—In two cases of stiffened joints where the inability to move the limb has appeared to arise from rigidity of the tendons and muscular sheaths, I have injected, subcutaneously, olive oil into the structures, and with some success. I find that a fluid drachm of the oil can be injected around the knee-joint without causing any after-inflammation or discomfort. In one instance, where the elbow was operated on in this way, the young woman obtained, for the first time, some degree of movement after six months' entire fixation from rigidity.—WARD (*The Asclepiad*.)

[Sweet almond oil is preferable to olive oil, as the latter is seldom had in a pure State in this country.—Ed.]

Bromidrosis.—

Excessive perspiration, of such offensive character that the subject had contemplated suicide, was cured in fifteen days. The feet were bathed for several days in a weak infusion of walnut-leaves and then was applied twice daily:

Glycerin	1 part
Iron perchloride	3 parts
Essence bergamot	q. s.

—LEQUOX (*Gazette Medicale*.)

Sodium salicylate.....	30 grains.
Potassium permanganate..	60 grains.
Bismuth subnitrate.....	12 drachms.
Acid boracic.....	24 drachms.

Apply to the seat of morbid perspiration.—*Journal Am. Medical Association*.

[There is nothing equal to a strong solution of sodium bicarbonate for the obliteration of fetid perspiration.—Ed.]

Quinine, Untoward Effects of.—An army officer for whom quinine was prescribed in one-grain pills (one to be taken every hour), although he protested he "couldn't take quinine," after three hours presented marked cinchonism with erysipelatous erythema of the face, followed by signs of collapse and mental delirium. The effects lasted about four weeks.—*Medical Age*.

Whooping Cough.—Every case may be ameliorated either by modifying the severity, or diminishing the number of paroxysms; in many instances both may be influenced.

Remedies, sedative in character, with fresh air afford the best results.

A remedy if of service will manifest its beneficial effects within twenty-four to forty-eight hours.

The best results are obtained when antipyrin and bromide are commenced at the height of the paroxysmal stage, and then pushed. These being sedative in character, the effect may be lost in a prolonged case, necessitating a change.

Children may have whooping cough without the "whoop."—*Red Cross Notes.*

Pilocarpine, Therapeutics of.—In orchitis administer in one-eighth grain doses along with one-half grain codeine; continue until copious perspiration is induced.

The same combination, employed in like manner, has proved useful in the painful attacks of gall-stone and renal calculi. The drug is also most useful in the management of certain forms of hic-cough, and in stricture and obstructions of the bowels.

Ranula is quickly removed by one-sixth grain of the alkaloid employed hypodermatically.—HARNSBERGER (*Medical Review.*)

Warts and Moles, To Remove.—The growth to be treated should be willed in with a bit of wax, vaselin, or mutton tallow, and then a drop of solution sodium ethylate placed on its very tip; after two or three minutes any remaining portion should be absorbed with a blotter. A caustic effect occurs which kills quite deeply, forming a dark scab which peels off and leaves the parts normal. If the growth is quite thick, one or two subsequent treatments may be required; but wait and see what one does before applying another.—ABBOTT (*The Alkaloidal Clinic.*)

Aortic Insufficiency.—

When this condition is a concomitant of acute articular rheumatism, the follow-

ing, in tablespoonful doses, repeated every fourth hour, will be found most effective:

- R. Sparteine sulphate.....3 grains.
- Digitalis infusion.....2 ounces.
- Syrup bitter orange.....2 ounces.
- Gum Arabic water.....4 ounces.

—*Riforma Medica.*

Scalp Ringworm.—

- R. Corrosive sublimate....1-6 grain.
- Acid tartaric.....8 grains.
- Cocaine muricate.....15 grains.
- Alcohol and distilled water,
of each.....8 drachms.

Scrape the affected parts well and make multiple subcutaneous injections of this solution.—DU CASTEL (*Munchiner Medicinische Wochenschrift.*)

Rheumatism, Chronic.—

- R. Potassium iodide....2 drachms.
- Wine colchicum root. $2\frac{1}{2}$ drachms.
- Peppermint water (or other flavor) to make.....3 ounces.
- A teaspoonful every four hours.

—*The Practitioner* (London).

Diarrhoea, Infantile.—

- R. Lactic acid.....36 grains.
- Quince syrup.....1 ounce.
- Distilled water.....1 ounce.
- Teaspoonful every two hours.

Thiercelin advocates lactic acid in dose of not less than 3 grains, daily, in children of less than one-year old.—*Gazetta Medica Lombarda.*

Ethyl Bromide.—The advantages of this drug as an anæsthetic are, briefly:

The short time required to procure unconsciousness:

The small quantity required, and its subsequent rapid elimination:

The simplicity of administration:

The comparative freedom from unpleasant sequelæ, headaches, nausea, vomiting, etc.—KRUSEN (*Phila. Medical Journal.*)

Medical Progress.

THE MEDICAL PROFESSION AND THE LAITY.

Two opposing facts co-exist regarding the duty of the public to the medical profession: One is, that the last two decades have witnessed an unexampled advance in the science and practice of medicine and surgery amounting almost to a revolution, and the other, that the popular mind is daily growing more prone to return to old superstitions in medicine, or to invent new ones even more absurd. Side by side with the astounding achievements of bacteriology, of antisepsis, and of skiagraphy, we have the inane drivel of "Christian Science" and the ridiculous pretensions of "osteopathy;" and the public seem to be about as much impressed in one direction as in the other, and entirely incapable of forming a rational judgment.

That blame attaches to the medical profession for this anomalous situation cannot, I think, be successfully denied. No idea, however meritorious, is ever sufficiently championed by those not directly engaged in its development. No subject will ever be thoroughly understood by the world, or fully enlist the interest of the public, unless those most conversant with it will act as educators in its behalf. And this, I believe, is the explanation of the failure of scientific medicine to obtain that hold upon popular recognition and respect which it obviously deserves, while the most impudent and absurd parodies are eagerly accepted by a credulous public. For this ignorance who is responsible if not the medical profession itself? We have been content to develop our science by original investigation and by accumulation of clinical experience, and to keep the results to ourselves as if they had no interest for those without the pale; and this attitude on our part has been met by a corresponding attitude of the world at large. The world has outgrown the mental habits of the scholastic age, and refuses to accept important conclusions on the simple dictum of "authority." It demands to be taken into the confidence of the schoolmen and at least to have the compliment paid it of being thought competent to understand what it is asked to believe. In all other branches of science

this is freely accorded. The utmost publicity is given to each new discovery, and the principles involved are fully discussed in popular language for the benefit of the public. Only in medicine is it considered unprofessional and undignified to give out anything to satisfy the interest of the laity in matters concerning which they are assumed to be incompetent of judging.

A dead language, even, is employed in writing prescriptions. Consultations are conducted in secret, and conversation between medical men in the presence of a layman is veiled in technical terms which are calculated to inspire him with awe, or perchance, distrust. Popular writings or popular lectures on medical topics are frowned upon as ill-disguised attempts at advertising. It seems to be no concern of the profession that the public should have correct ideas in regard to medicine, or in fact, any ideas at all.

Contrast with this the methods of, for example, Christian Science. Here all they have is fully discussed, the only trouble with them being that there is so little of it. If they had more they would tell more. Their candle is not hid under a bushel, but put upon the highest candlestick they can command. Their principles, such as they are, are open to inspection, and many people imagine that they find them sufficient and conclusive. There can be no doubt at all events, that they are thoroughly interpreted by those who stand for them.

To very many fairly intelligent persons this open discussion, however unsound the premises may be, appeals more strongly than the shadowy glimpse they are able to obtain of legitimate medicine. And this will come to be more and more the case unless the profession awakens to a sense of the obligation that rests upon it to impart to the public the information needed for a correct judgment upon matters of this kind.

Papers and lectures in popular language on medical subjects, by medical men of recognized position and ability, and published by the daily press, could be made extremely valuable in bringing the profession and the public into mutually helpful relations. An intelligent comprehension of what medicine has accomplished and what it aims to yet accomplish, together with its necessary limitations, would remove a great deal of popular misapprehension. This misapprehension in-

cludes in about equal proportion extravagant ideas of what medicine can do, and skepticism as to its ability to do anything. It is certainly very desirable that the layity should be able to settle down to a just medium between these extremes. It is as regretable, for instance, that the nation should find credence that the X-ray has opened to view all the morbid phenomena occurring within the body, as that the idea should take possession of the public mind that in reality we know little or nothing about these phenomena.

The world has a right to know, and it is our duty to tell just what progress we are making day by day; the steps by which results are obtained, the difficulties we meet, the uncertainties which are still to be cleared up, the problems which are pressing for solution; even the errors we have fallen into in making our deductions. Such a frank and open course would command confidence and silence criticism and blatant charlatany, and thus open the way to greater liberality of feeling and a more complete fulfilment of the duty which the public owes to the medical profession.—A. H. SMITH (*American Medicine.*)

"Kissing the Book."—

We are glad to see that some progress is being made toward the abolition of the uncleanly and dangerous practice of administering the oath by requiring a witness to "kiss the Book." * * * * "If you have got a fad about microbes you should say so, and I will swear you Scotch fashion," said a judge. This offer marks a distinct advance, although it would have been more satisfactory had the judge set an example and carried out the law in a more gracious fashion. * * * * The City Press is responsible for the statement that the two Testaments in the City of London Court are kissed by 30,000 persons annually, while a police court usher recently stated the covers of his Testament are worn smooth and well polished from the pressure of numberless lips, some 49,760 witnesses being sworn annually. There can be no question whatever about the right to be sworn in the Scotch fashion. * * * * We are informed that the members of the Leyton Medical Society have agreed invariably to adopt this form, and the matter is one up-

on which the medical profession might very well continue to preach by example.
—*British Medical Journal.*

The "Refracting Optician."—

Every man can instance many examples where harm has been done by the pseudo-profession of opticians. A mother, at the instance of a teacher, took her son, a lad of 8 or 10, to one of these fakirs with the history of dullness in school and poor vision. Unable to improve the visual acuity of the boy by any glass, he jumped at the conclusion that there was some cerebral trouble, and, telling the mother that there was inflammation of the optic nerve, advised her, not as one would suppose, to see a physician, but to give the boy some strychnia. She obtained from a druggist tablets containing one-sixtieth of a grain of the drug and proceeded to feed the boy upon them, thinking that the prescriber was a doctor and that he would not advise her to do anything that was harmful. As a result convulsions occurred and a dangerous termination was only averted by a timely knowledge of the treatment he was undergoing. The vision was easily improved by proper lenses and no further trouble was experienced.

Again, a lad with a vision of one-fiftieth was wearing concave spherical glasses of 12 diopters, with no improvement of vision, while his refraction was hypermetropic and required for correction a convex glass of 9 diopters,—a difference of 21 diopters.

A man recently entered the Rhode Island Hospital with a diagnosis of "inflammation of the optic neuritis," and another with a detached retina, both for an operation for cataract; a lady recently had her glasses changed four times in as many months, with a steady impairment of vision, who was suffering from albuminuric retinitis and who died within a few weeks after the diagnosis was made and the condition ascertained. So example after example might be quoted where injury to the patient resulted both by incorrect adaptation of lenses and failure to recognize existing morbid processes.

This is not, however, a plea for special legislation, but an appeal to the profession to discourage the practice of consult-

ing incompetent men for ocular defects. There is no selfish or pecuniary consideration to this question; on the contrary every one of the dozens of incompetent men who are doing this work are manufacturing future patients for the physician; but the welfare of the community demands that the profession take a decided stand on this question. They have in their power to control this evil within at least moderate bounds."—*The Providence Medical Journal.*

Intestinal Obstruction (Infantile).—

A patient twenty months old, of good family history, when first seen was much emaciated, with evidence of pain, abdominal distension, but no tenderness; there was no vomiting and the bowels were regular. While under observation, the child grew suddenly worse and died before permission to operate was procured. On post-mortem a stricture of the ileum, which only admitted a probe, was found. The condition was, undoubtedly, congenital, and is supposed to have arisen in connection with the involution of the embryonic vitelline duct. Had the lesion been recognized, by feeding the child on soft, easily digestible food its life might have been prolonged. By way of operative treatment, the intestine just above the stricture might have been brought out of the abdominal wound, opened, and a subsequent anastomosis done.—*GROVES (British Medical Journal.)*

Circumcision as a Preventive of Venereal.—

It is not likely the practice of circumcision will ever become universal, but the reasons that have been put forward should be sufficient to warrant its continuance and extending the field of its application. For those who see in it no religious justification, there is abundant reason of a less spiritual character for its performance; and the physician has at command a potent means for restricting the ravages of a disease that he cannot hope ever entirely to eradicate, and which, while ordinarily amenable to treatment, is still capable of causing much suffering to innocent and guilty, to transgressor and victim alike.—*The Medical Record.*

Intussusception.—

During seven years I have operated on forty cases with a mortality of 45.5 per cent. In those in which recovery followed, the operation was performed twenty-four hours after the onset of the symptoms—showing the importance of early recognition of the condition. Diarrhoea may precede the attack, during which sudden, severe pain with passage of small, bloody, slimy stools occur; a sausage-shaped tumor may be felt through the distended abdomen. The intussusception sometimes descends into the rectum and through the anus. In acute cases after a few hours there are usually symptoms of intestinal obstruction. Reduction, under anaesthesia, with the buttocks elevated, by means of the injection into the bowel of a pint of warm water or oil may be tried; should this fail the abdomen should be opened at once, and the invagination reduced. Should the bowel be torn or this method fail, resection must be performed.—*CLUBBS (The Lancet, London.)*

Role of the Prostate.—

Removal of the anterior lobes of the prostate in rats has no effect on breeding; but in a certain number it diminishes the fecundating power; and in a few it is destroyed entirely. Complete excision has a very marked effect on fecundity, reducing it to almost nil when the gland is entirely removed. Partial or complete removal of the prostate has no effect upon the sexual desire and capacity. Complete removal of the gland in the adult animal has no effect on the histological structure of the testicles; complete removal in the young animal has no effect upon the subsequent development of the testes.—*WALKER (Bulletin Johns Hopkins Hospital.)*

Displacement of Liver.—A young man, aged 25, for the past ten years had repeated attacks of asthma; also had pleurisy on the right side three times. The lower border of the liver was below the umbilicus, and percussion over the normal position of the organ elicited a tympanitic note. Rest in bed always resulted beneficially. The interesting point is, that the case was associated with definite attacks of spasmodic asthma.—*H. B. ANDERSON (before the Toronto Clinical Society.)*

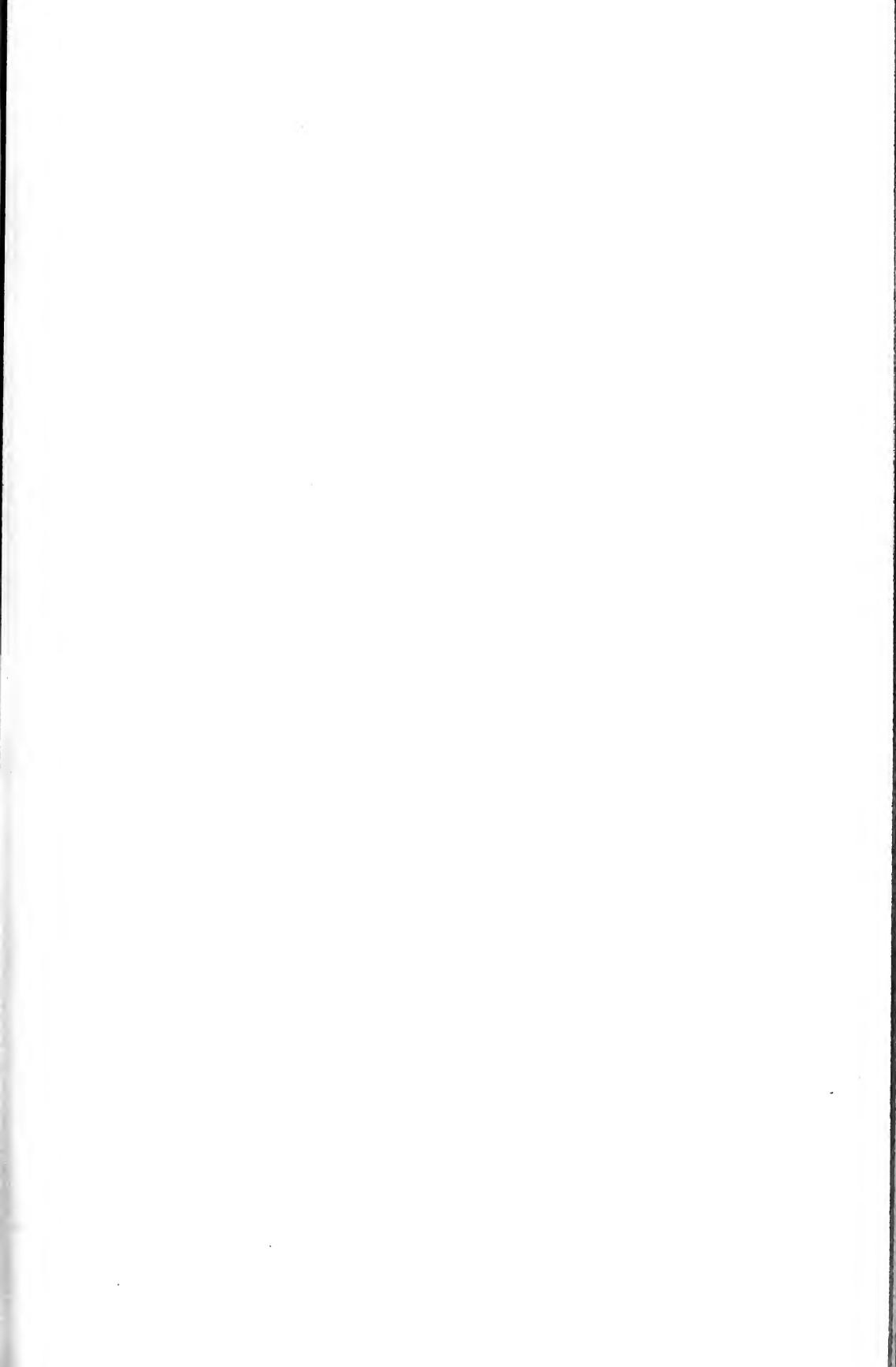




Fig. No. 1.

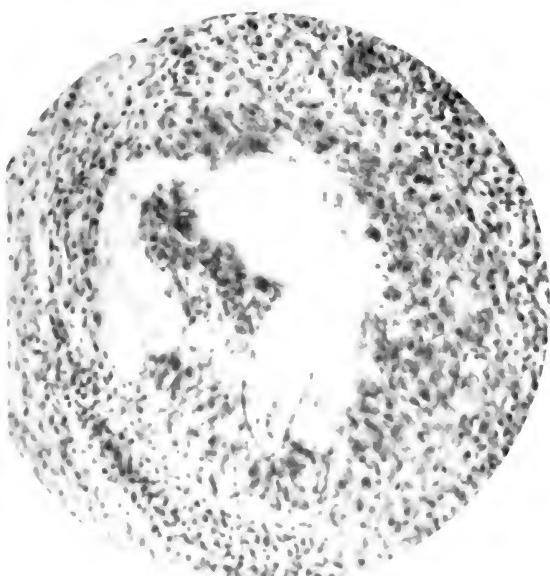


Fig. No. 2.

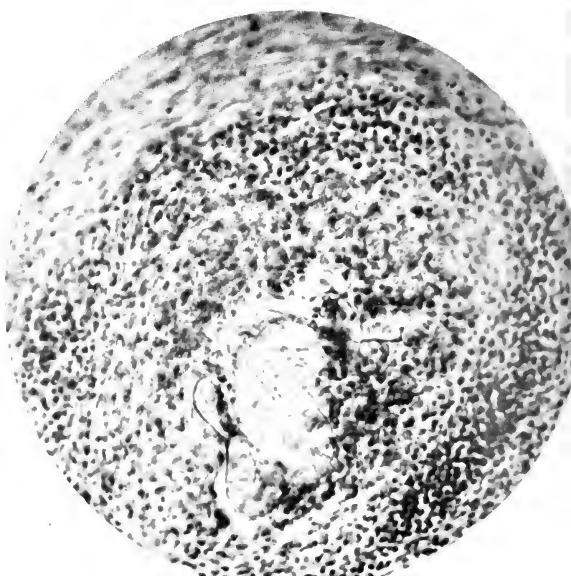


Fig. No. 3.



DETROIT MEDICAL JOURNAL

Original Articles.

*PSEUDO-TUBERCULOSIS.

WM. F. METCALF, M. D.

In March, 1900, the Pathological Society of London recommended the term "Pseudo-tuberculosis" be discarded, since it includes various ætiologically distinct processes that resemble each other only in the production in the tissues of small nodules or tubercles. They form in:

A number of bacterial infections: .

Blastomycosis :

Actinomycosis :

Aspergillosis :

Protozoan infections :

And sometimes result from the presence of higher animal parasites, chiefly worms.

Nocard, Pfeiffer, Kutscher, Muir, and other observers, have described diseases in which tubercles were present, the causal agents being bacilli which differed from the *bacillus tuberculosis*; while Paul Courmont applies the term to all proliferations which occur around inert foreign bodies.

I present for consideration certain micro-photographs of a tubercle caused by the presence of a portion of the head of a wood-tick (species, not identified; family, *Ixodidae*; order, *Acaridæ*), an insect that is wont to at-

tach itself to the animal- or even the human skin, and burrow therein, for the purpose of deriving nourishment therefrom. To facilitate operations, it is provided with a mandible and sucking apparatus; and once lodgement is effected it proceeds to gorge itself with blood, until its body is distended to the size (and relatively much the shape) of a small bean. In this condition it may remain, if undisturbed, hanging to its host for several days; but if attempts are made at removal, invariably the head is left behind, buried in the tissues, thereby inducing inflammation leading, perhaps, to suppuration. It will, however, drop off once its appetite is sated, or if it is repeatedly bathed with alcohol.

A month ago I was in Frontera, Southern Mexico. On rising, one morning, my wife directed my attention to the fact that one of these creatures, probably a form of wood-tick, had fastened itself to the front of my neck: While she was examining it, I discovered one in exactly the same location upon her neck. I brought the two home thinking they might be of interest in connection with this report.

The largest of the two, undoubtedly a female, was nearly filled with blood and came away upon the first application of alcohol; the smaller, and presumably a male insect, required to be bathed several times before it would let go its hold.

*Read before the Detroit Academy of Medicine, April 22d, 1901.

The patient who furnished the specimen from which these photographs were made, was bitten upon the gluteal region two years since, in Florida, while lying in a hammock. Itching soon began at the site of the bite and gave continuous annoyance. I found a hard lump the size of a half filbert in the skin; it was not raised but extended into the subcutaneous tissue. The micro-photographs, prepared by Doctor Heneage Gibbes, show that all the blood-vessels are mapped out by lines of inflammatory exudation, and that in one place there is a rounded mass, near the centre of which is a spot of yellow color, homogeneous in structure. (Figure 3.) A higher power, (Figure 1,) revealed the fact the round mass with the yellow spot (*A*), was a tubercle formed round a portion of the head of the Ixode, the yellow color being due to the chitine. The tubercle was made up of cells that differed from those of the surrounding connective tissue, being round, nucleated, and with a different reaction to staining reagents. In Figure 2 is seen a multi-nucleated giant cell. The cells surrounding the blood-vessels are leucocytes, and in no place but in the tubercle are any of the abnormal cells found. No micro-organisms could be found.

The points of interest are:

A new growth formed around a foreign body made up of cells differing from those of the surrounding tissue:

A diapedesis of the leucocytes in all directions for a considerable distance around the pseudo-tubercle, with no micro-organisms present.

636 Woodward Ave.,
Detroit, Michigan.

TENACITY OF LIFE IN PATHOGENIC BACTERIA.

BY DOCTOR H. J. DETMERS.

It is a well known fact that certain infectious diseases appear, prevail for some time and disappear, and then after a shorter or longer interval (not seldom several years)

make their reappearance suddenly in the same precise locality, without any ascertainable source of re-introduction.—In some instances, of course, the re-introduction may have been definite enough, but simply escaped observation; but this can not in each instance be assured. One of the most striking incidents of this character came under personal observation at the time I was a student at a university in North Germany; it was not alone striking, but *remarkable*, and left a deep and lasting impression. Prefatory to this narration, however, I will lay before my readers some pertinent topographical features of the country:

The North-Sea coast of Germany is very flat—low and level—and composed of rich alluvial soil that extends inland for, perhaps, ten English miles or even more. This alluvial border was formerly sea-bottom, but for many years has been reclaimed and protected against flood-tides by high dikes or "*levés*": It also embraces a net-work of canals and contributary ditches excavated for purposes of drainage, though many of the former are likewise navigable; the latter maintain an average depth of six feet, and a width of eight or nine feet at the top (with perhaps four or five feet at the bottom) and, in lieu of fences and walls, serve to mark boundaries. All the ditches contain more or less water according to the season, the surplus being drawn into the canals: And thus each canal, with its tributaries, drains an area of from two to four miles in width and the depth of the alluvial border. Each canal also empties into the sea by an automatic sluice (*seil*) which is arranged to close at flood-tide and open again at full-ebb, or can be closed or opened at will to meet the exigencies or circumstances that may arise. There is no perceptible current in any of these water- or drainage-ways except, perhaps, after a heavy rain-fall, hence in the course of a few years considerable mud or silt accumulates on the bottoms (that is seldom or never removed) until the canal or ditch no

longer serves its purpose; many water-ways for this reason have been abandoned.

One of these canals, not used for navigation except for small boats (skiffs, and the like), and then only for a distance of a mile from the sea, constituted the outlet of a drainage system that embraced an area of perhaps twelve square miles. This, in 1849 or 1850, was cleaned out, probably for the first time in the course of the Nineteenth Century, if not for the first time during its entire existence, and the ooze derived therefrom spread upon the fields adjoining.

Usually, in this part of the world, the fields, after having been used about six years for grain, are sown to grass and made use of for six years more as meadow and pasture, being again broken into and sown to grain at the termination of this latter period. One large pasture, adjoining the canal, was an exception in-so-far it had not been broken into for fifty years or more, and during this time had been used every year as a pasture for the fattening of cattle. When the water-way was cleared out, this pasture was occupied by about fifty beefeves, all in good condition and rapidly fattening; and all had remained healthy until such a time as the ooze was thrown onto the field, there to become dry and cracked; but when the young grass sprang up between the cracks, some of the bovines took sick and died with unmistakable evidences of anthrax (German, *milzbrand*; French, *charbon*.)

This would not have appeared especially strange if other cases had appeared in the community, or if the country had been invaded by the malady within a recent period; but such was by no means the case. On the contrary, no case of anthrax had occurred for more than half a century according to the testimony of the oldest inhabitants within a radius of twenty miles. Again, the owner of the cattle had been in possession of this pasture for many years, having inherited it from his parents, and never before had lost an animal from the

disease; and the veterinarians and others in position to know the facts had never seen or heard of a case in that part of the country.—The evidence was positive that no case of anthrax had appeared in that part of the country subsequent to the Napoleonic wars. At this time the *bacillus anthracis* had not been discovered, but nobody questioned the contagiousness of the malady, and as idiopathic development was not regarded as impossible—but on the contrary as highly probable, and even accepted by a vast majority of scientists,—there was no hesitation in laying the primary cause to the ooze or mud excavated from the canal. Another thing, there was no outbreak of anthrax save in the animals that fed in that one pasture.

As before remarked, this case made a deep impression upon me; therefore, when the discovery of the *bacillus anthracis* was announced and I came into possession of a culture of unquestionable genuineness and purity. I concluded to solve, if possible, the mystery of this strange occurrence as soon as I might be in position so to do.

In 1883, Doctor Lester Curtis, of Chicago, Ill., visited Koch's Laboratory in Berlin, where he procured cultures of pathogenic bacteria. I visited him soon after his return, when he exhibited his cultures, among them a thread of surgeon's silk which had been charged in Koch's laboratory with a fluid anthrax culture, subsequently dried, wrapped in tin foil, packed in cotton, stuffed into a homœopathic vial, the whole closed with a cork and hermetically sealed with shellac. Doctor Curtis opened this package for the first time in my presence, cut the silk thread in two, packed both portions thereof in the same way as before, in separate vials, and sealed, and kindly delivered one to me.

Just then I was not so situated that I could conveniently and safely experiment with such a dangerous thing as the *bacillus anthracis*, and it so happened that I kept the silk thread undisturbed until November, 1886, when it was removed from its en-

velope and dropped into a test tube containing, simply, reliable nutrient agar-agar.—I have no memorandum as to the exact date on which this act was performed, but it must have been about November 9th, because, on the 11th, I discovered a very vigorous and pure culture of perfect rods presenting all the characteristics of *B. anthracis*, and of which I made, on that date, over fifty good microscopical slides.

Astonished that the spores of the bacillus adhering to that dry silk thread (deprived for three years of any nutriment or fresh oxygen) should germinate so promptly and produce such a vigorous growth, I at once determined to extend the experiment, and accordingly charged four new silk threads with my culture, in the same way as before, and hermetically sealed them. The first of these vials was opened on the 23rd day of May, 1891, and by reason of that thread vigorous new cultures were developed within forty-eight hours, of which several slides are still in my possession—I should here remark in 1886 a few cultures were made, though subsequently destroyed (I had secured all the slides I cared for), after the genuineness thereof had been determined by inoculating rabbits. Of the cultures made in 1891, cultivation was kept up until December when these, too, were destroyed. In order to verify the genuineness of the bacilli, two rabbits were inoculated, which proved the culture to be as virile as in 1886—at that time it had already become evident that the malignancy of the culture had been considerably modified and decreased (attenuated) so that, although the effects produced were characteristic, none of the rabbits—neither the one in 1886 nor the two in 1891—died of the disease, but were killed for post-mortem examination and to verify the diagnosis. In 1891 I kept up my cultures long enough to observe and to study the spore-formation of the *B. anthracis* and also, in one instance at least, the so-called involution forms. Of the spores and spore-bearing bacilli I made

several slides, and succeeded by double staining in bringing out very plainly all the characteristics thereof: Also some old cultures containing nothing but spores were used to start new cultures, in all of which a vigorous growth of bacilli took place. I have preserved several slides of the cultures (test-tube and plate cultures) all of which show the characteristics of the *bacillus anthracis* very distinctly, although in some the staining is now somewhat faded. In the winter of 1891-'92 I sent a vial with one of the silk threads to a friend, a prominent physician and scientist in Cincinnati, and he, too, obtained the same precise results.

December 23rd, 1899, I opened the third vial, and inoculated two tubes with nutrient agar by dropping into each of them one-half of the silk thread, with the result that, two days later, a vigorous culture had developed in each, of which several slides were made and preserved. Not having the necessary facilities to make inoculation tests on suitable animals without incurring considerable risk or danger, I sent two test-tube cultures (one a second culture and the other inoculated with a piece of silk thread already used to start a culture and taken out of the test tube into which it had been dropped), on December 23rd, to my friend, Doctor Paul Fischer, in Manhattan, Kansas (now of Columbus, O.) who obtained precisely the same results as myself in 1886 and 1891. I have yet one vial with an infected silk thread left, but it will not be opened until in 1911, when it will be twenty-five years old.

Although my intention is not to indulge in theorizing, I can not forego the privilege of saying that, in my opinion, the infection of the fifty cattle in North Germany can only be explained by the fact that anthrax spores had for many years been lying dormant in the ooze of the canal—in possibly but one or two places—opposite the pasture in which the steers were grazing. These spores may have had their origin, many years before, in the carcass of an animal

that died from anthrax, and had been thrown into the canal.

Although this disease has never been especially prevalent in that part of Germany, it is a well known fact that during the Napoleonic wars and the numerous wars preceding, all kinds of contagious and infectious diseases were spread broadcast—perhaps not everywhere to such an extent as to gain a foothold sufficient to develop into an epizoötic, but in many instances just enough to cause sporadic outbreaks. Concerning anthrax this is the more probable: *First*, because it is an infectious and not a strictly contagious disease: *Second*, its period of incubation is comparatively very short, and: *Third*, the diseased animals die in a very short time.

I stated that the malignancy of the bacilli of the primary culture, started with the first silk thread, proved to be considerably attenuated, unquestionably due to the fact that the thread had been charged with a culture already attenuated, but that no further lessening of the pathogenic properties could be observed in the cultures started with the secondary silk threads, although the spores on one of these had been in a dormant state for over thirteen years. This coincides with clinical observations, viz. that the malignant properties of quite a number of pathogenic bacteria can be attenuated by artificial means. Of this I have the most absolute proof, and it is a well known and accepted fact; but according to my experience and investigations it must be done while these bacteria are not in the form of spores—at least the means I employ appear to have no effect upon spores, although through these means the scientist has it within his power to reduce the malignant properties of more than one highly pathogenic bacterium, and to such an extent that an inoculation of a susceptible animal with an otherwise lethal dose will not only fail to induce fatal results, but will also fail to provoke any plainly observable symptoms of disease, unless, perhaps, an exceedingly large quantity should be employed.

Bacillus anthracis, however, is not the only pathogenic germ possessing such wonderful tenacity of life; there are probably many others, at least among those that develop spores.

Regarding the bacillus of swine-plague, *B. suis*, I have had the most positive proof. This bacterium, like many others, produces spores, provided the temperature is neither too high, nor too low; and if the temperature is favorable, spore formation will begin in an agar culture within thirty-six hours, and be completed (or nearly completed) in six or seven days. If, however, the temperature is either a little too high or too low, the process will be somewhat slower. The spore formation of *B. suis* is entirely different from that of *B. anthracis*, and, although not the same, it somewhat resembles that of *B. tuberculosis*, the spores of which, also, must be suspected of possessing great tenacity of life. Those of the bacillus of swine-plague (so-called hog cholera), as will be shown by the following facts, retain their vitality or germinating power nearly, if not fully, as long as the spores of the anthrax bacillus.

On September 8th, 1892, I hermetically sealed four flasks, each of a capacity of one-hundred cubic centimetres, by fusing the long and slender necks in the flame of a Bunsen's burner. Each one contained about one-hundred cubic centimetres of a pure culture fluid of the bacillus of swine-plague, in which spore formation was rapidly progressing, though probably not yet completed. The malignant properties of the bacilli with which the fluid culture had been started, had been attenuated to a certain degree by artificial means, and the same had been tested and recorded before the fluid culture was made. In 1895 I opened one of these flasks; in 1893 another; and on November 7th, 1900 (eight years and two months after the flask had been sealed) the third; while the fourth is yet hermetically sealed and will so remain for several years longer. There can be no doubt that the nutrient con-

stituents of the culture fluid, and the oxygen of the small amount of air enclosed in the neck of each flask, must have become exhausted long before the first flask was opened in 1895. Each time when a flask was opened, two or more nutrient agar cultures were at once started with as much of the contents of the flask as would adhere to the small loop of a platinum needle, also a little of the contents employed to make a few slides for microscopic examination, and finally two rabbits were inoculated with from 0.5 to 0.8 cubic centimetres of the fluid culture according to the age and size of the animals at my disposal,—the inoculations in all cases were made with a perfectly sterile Detmers-Robinson aseptic syringe of a capacity of 1.5 cubic centimetres. Since the result was in all cases precisely the same, unnecessary repetitions may be dispensed with.

In the agar culture, I had in all cases, a vigorous growth of normally developed swine-plague bacilli in about twenty hours, and every culture proved to be pure and free from any other bacteria, as was in each instance verified not only by a careful microscopic examination of several slides but also by a further propagation in other sterile culture media. All the microscopic examinations were made with a first class Spencer 1/10 homogeneous immersion objective, a first class one inch Tolles, or a first class one-and-one-half inch Beck eye-piece and a Bausch and Lomb achromatic condensor. The slides made from the contents of the flasks revealed nothing but large numbers of minute spores, which only reluctantly accepted the carbol-fuchsin stain, and did not contain any rod-shaped bodies whatever. The inoculated rabbits, with the exception of one (a strong and vigorous male, which recovered after a very severe illness), all died on the sixth or seventh day after the inoculation. This precisely agrees with the recorded test made prior to September 1892, before mentioned.

I did not deem it necessary to state that

the silk threads (wrapped in tin foil and cotton, and hermetically enclosed in vials) were not exposed to light, because the wrappings necessarily excluded every ray of such, but I will explicitly state that the flasks containing the fluid cultures of swine-plague bacilli, though repeatedly exposed to widely differing temperatures, ranging from 110 degrees Fahrenheit down to the freezing point, were always kept in a dark place and never exposed to direct sunlight.—An exposure to sunlight, at least if continued for any length of time, would very likely, have a fatal effect upon the spores; a comparatively short exposure thereto is sure death to the bacilli.

That swine-plague bacilli, or rather their spores, possess great tenacity of life is amply corroborated by clinical observations. So, for instance, it occurs quite often that swine-plague, for some cause or other, apparently dies out and disappears in a given locality, and then, all at once, perhaps after several years, suddenly makes its reappearance, even under circumstances excluding a probability of a re-introduction from some outside area. In such instances it almost invariably takes its start from the border of some woods, or from a big old strawstack, places in which the bacillus spores are apt to survive because protected by darkness and moisture.

Columbus, Ohio.

METHODS OF CLINICAL DIAGNOSIS.

BY J. A. MacMILLAN, M. D.

Investigation of all the signs and symptoms of disease is the primary essential of diagnosis. To be uniformly thorough, the investigation must be systematic and include interrogation of the patient as well as physical examination. This first step is so obviously important, and errors so frequently traceable to faulty or deficient observation, that most authorities call attention to methods for facilitating and recording data peculiarly appropriate to their respective specialties.

In the matter of physical diagnosis exceptional progress has recently been made, and for this progress we are greatly indebted to the physical sciences: From Chemistry we have many new reagents; from Physics the microscope and Roëntgen rays; from Biology a knowledge of bacteria; in fact all the physical sciences have made contributions that have been utilized by the medical profession. But activity in the whole field is due, to some extent, to the rapidly increasing demands of successful surgery, at whose chariot wheels a tardy diagnosis may be said to drag. Our hopes hang upon advancement in physical diagnosis, and through it we may expect to bring into subjection to surgical and medical therapeutics, such (as yet) unconquered maladies as cancer, tuberculosis, etc.

It is not proposed to discuss methods of physical examination or clinical investigation, but to study a further step in diagnostic procedure—a step that is essential, important, and one to which many an erroneous diagnosis may be traced: I have reference to methods of inference.

It is presumed that a thorough investigation has been made and all the data systematically recorded. There remains then, to draw conclusions as to the cause or causes that underlie the pathologic phenomena. The symptoms are often so complex that the most experienced diagnostician is at a loss to know how to proceed, and is tempted, perhaps even compelled, to begin treating symptoms. But, sooner or later, experience brings to the intelligent practitioner methods of reasoning which he is able to apply more or less accurately.

Before proceeding to discuss diagnostic methods, I may say by way of apology, that many members of the profession have emphasized the importance of training the powers of reasoning as well as those of observation, and called attention to the fact that the two go hand in hand; that for mistakes in diagnosis the one is as often responsible as the other. The necessity for

training the faculty of reasoning is recognized by all educators. Doctor Chas. Eliot, President of Harvard University, in a recent address gave as the first object of education—"A training of observation"; and as a second—"A training of the power of inference."

A study of methods of diagnostic inference means the application to pathologic phenomena of the same methods, inductive and deductive, as are employed in the physical sciences; they are, moreover, the same methods as are incorporated by jurists into the laws of evidence, and to the intelligent use of which the sciences owe their very existence. This study includes:

The enumeration and definition of the various inferential methods, and (particularly):

A description of their application in diagnosis.—This latter is attended with some difficulty, for the data from which diagnostic conclusions are drawn are numerous, varied, and often apparently disconnected; again, very few are of a nature to admit of quantitative estimation, and often the most potent cause or significant result is hidden or obscure.

Under such circumstances it is not to be marvelled at, that the determination of the causes of disease is so difficult. But the very complexity of the data which form the premises, and the consequent difficulties attending attempts at inferences (along with the urgency that impels to some conclusion), calls for exceptional soundness of judgment—a reasoning faculty that must be so well trained that it is not only able to make use of all sources of information but also to appreciate the limitations to the conclusion when the data are insufficient.

A method of reasoning to which I shall give first attention is one with which the term Pathognomonic is associated.—The word "pathognomonic" is often applied to one symptom or sign by which a disease is recognized, but such sign or symptom, thus considered, borrows its significance from other

associated symptoms and circumstances. In this paper the term is employed as being indicative of the symptom-group.—Thus a "strawberry" tongue, the presence of the *bacillus tuberculosis*, or an ascitic fluctuation, is not pathognomonic of an individual malady, but each when coupled with certain phenomena forms a definite pathologic picture. This method is deductive, and presupposes familiarity with the chief characteristics of the individual disease.

The number of maladies for which we have definite pathognomonic signs is steadily increasing. Discovery of a specific micro-organism is often evidence sufficient to complete a symptom-group and render it pathognomonic. Variations in count of leucocytes may extend the pathognomonic method to the diagnosis of acute, internal, inflammatory processes and thus give early and reliable evidence of appendicitis.

The requirement for the correct application of this method of reasoning is, a knowledge of the symptom-group which is invariably present in any disease and absent in others. It is applicable to all inflammations and new growths; to gross pathological lesions, such as wounds, fractures, and dislocations; likewise to many well known maladies, such as the exanthematous fevers. The certainty of a diagnosis in the absence of this method is in no way assured, and accordingly radical surgical measures are seldom permissible when a pathognomonic group has not been obtained; even other therapeutic efforts are often withheld until the pathognomonic signs are complete:—Thus, for example, it is generally deemed advisable to await the secondary manifestations of syphilis before administering mercurials.

The most strenuous efforts are applied toward the discovery of pathognomonic signs. Especially are these efforts directed toward the detection of cancer and pulmonary tuberculosis in their early stages—In their later manifestations the pathognomonic pictures are only too common, but unfortunately they

are then beyond the control of any form of therapeusis at our disposal. It is precisely in their incipient stages, and when they are amenable to surgical and medical measures, that their diagnosis by this method fails. There is no sign that is peculiarly or definitely characteristic of malignant disease of the stomach in its incipiency; the very best we can do is to obtain a symptom-group that is suggestive of the condition. This symptom-group forms an imperfect pathognomonic picture which, with the assistance of differential methods, and confirmation by other sources of reasoning, establishes the diagnosis, or renders it sufficiently reliable for all practical purposes.

Just here I may state that differential diagnosis is not a method of reasoning, but a final step in the completion of the pathognomonic method. When the pathognomonic symptom-group is obtained it is carefully compared with similar groups indicative of other diseases, and the differences noted. The comparison of these several similar groups serves to complete the pathognomonic picture and excludes the diseases possessing similar groups.—This is often the procedure most important of all, for affections differing widely in pathology and location may present very similar clinical manifestations, and it is only by most careful attention and estimation that mistakes can be avoided. An interesting illustrative case is the following:

R.B., aged six years, was first seen March 10th, 1899. He was lying on his left side, knees and thighs flexed; poorly nourished, very irritable, unable to retain any form of food (a condition that had persisted for twenty-four hours), and refused both nourishment and medicine. Complained of pain in the chest and abdomen; coughed considerably and cried with pain when he coughed. Bowels had not moved for two days. Pulse 130; temperature 105°.

On palpation of abdomen and chest, complained of diffuse tenderness; the abdominal muscles were rigid. Respiratory murmur on left side was loud and harsh compared with that on right, but on following days there seemed to be some decrease on right side. Here I had the benefit of two excellent

consultants, who agreed in a diagnosis of "pleurisy," but differed as to its *location*,—one placed it on the left, the other on the right side. The little fellow slowly recovered, but the following May was seized with a like attack, with the exception that the tenderness was in the abdomen, and after a few days confined to an area to the right of the umbilicus, where rigidity and swelling were evident and that strongly suggested appendicitis. On operation, undertaken on May 10th, I found the peripheral neck of the appendix entirely sloughed off—amputated, rather—by two concretions the size of good-sized peas.

The adhesions permitted of no doubt as to this being a second attack at least, and from the history I am compelled to believe that the "pleurisy" in March, was in the region of the appendix. At that time the diagnosis should not have been made until some of the acute symptoms had subsided, and in the meantime diligent examinations of the patient should have continued: Had such course been pursued, I believe the verdict of appendicitis would have been arrived at two months earlier. The abdominal tenderness, the flexion of thighs on the abdomen, the persistence of recumbency on left side, the steady vomiting and constipation, all were distortions of the usual pictures of pleurisy that should have enforced delay in diagnosis.

In connection with the pathognomonic method of experience, I subjoin the following:

The most careful examination and study of signs is of primary importance:

The symptoms as contra-distinguished from signs should never be ignored:

Where there is any obscurity the diagnosis should be withheld and repeated examinations made:

In every case a differential diagnosis should be considered as a routine necessity, and receive careful attention:

Because a certain disease invariably presents a certain symptom-group, it does not necessarily follow that the converse must be accepted—that the presence of this symptom-group is invariable evidence of the pres-

ence of this particular malady.—For example, persistent pain and a palpable tumor (along with certain other symptoms) are pathognomonic of cancer of the stomach, and cancer is invariably present when the symptom-group, as a whole, is present; but, on the other hand, cancer may exist without any portion of the characteristic symptom-group manifesting itself.

In every case the greatest importance attaches to the origin of the disease, and the mind turns spontaneously and with peculiar interest to an examination of all the circumstances attending its origin. The reason for this is found in the fact that these circumstances, and these alone, supply data for a method of reasoning than which none other has played a greater part in scientific research. This method of reasoning may be briefly outlined as follows: When a new factor is followed by additional phenomena, the antecedent is the cause of the subsequent phenomena! This is termed the method of difference, and is the inductive so widely used in chemistry and all the other physical sciences, and however far afield its application to diagnosis may seem, its use in the sciences is absolutely essential and obvious.—When the electric spark is passed through a mixture of oxygen and hydrogen, an explosion results with formation of water. Here we have no difficulty in drawing conclusions as to causation. So we have this fundamental method of inference, that when two, and *only* two, phenomena occur together, one is the cause, the other the effect. However self-evident this rule may appear, it was never clearly defined until the time of Bacon, and its discovery has been the most potent factor in the advancement of science since that time. It is not alone a method of inference, but it is a fundamental principle of judgment; it is based upon the intuitive conception of causation, so that when phenomena occur together, as they do in experiment and in the whole world of Nature, the mind instinctively ascribes causation as a connecting link.

Now as to the application of inference to

diagnosis, considerable difficulty is experienced; but we do know that it is by virtue of this reasoning that so much diagnostic importance attaches to the history and origin of disease. We know also that when a healthy individual has been subjected to a pronounced change in environment or condition, and thereafter becomes the subject of pathologic symptoms, this principle of reasoning manifests itself by suggesting change in environment or condition as the cause. Again, when radical changes in occupation, diet, and climate are followed by untoward symptoms, we are impelled to consider the probability of causation as between the antecedent and consequent phenomena. More specifically does this method apply in diseased conditions that follow traumations, such as blows, falls, wounds, confinements, and operations. It is not my intention, however, to give, even in a general way, the different conditions to which the method is applicable, but I do wish to call attention to one very important class of cases in which this method plays a most prominent part: I now refer to those in which gross pathological lesions exist in conjunction with a variety of more or less depressing symptoms! Lacerations of the cervix uteri, floating kidney, cystic and other tumors of the ovaries and uterus, displaced organs, etc., often exist in patients who complain of a great variety of symptoms. Having discovered one of these lesions the surgeon is strongly impelled to believe the concomitant debility, constipation, pains, etc., are the result of the gross lesion.

Since many of these cases are operable, this method is often put to severe test; and, unfortunately, after the operation it sometimes happens that, despite the fact the surgical procedure was eminently successful, the same old symptoms still remain. An eminent surgeon once declared that: "Disappointments in surgery are due to two things; Timidity on the part of the surgeon causing him to stop short of a radical operation, and: Failure of the most successful

operation to relieve symptoms of which the patient complained and for which a cure had been promised."

The limitations to this method of reasoning in diagnosis are very apparent when pathological conditions in the human organism are compared with laboratory experiments. In the latter, for example, a known quantity each of zinc and sulphuric acid, under certain temperature and pressure are placed in a retort, and chemical combustion takes place, every circumstance of which is thoroughly known and understood. On the contrary, in the healthy and diseased organism, and its environments, but a small fraction is known and that imperfectly; innumerable changes are constantly taking place of which we are entirely ignorant, and unfortunately we lack a knowledge of those processes which seem to be nearest to the very citadel of life.

When any conspicuous change takes place in the condition or environment of an individual, followed by symptoms of disease, we must not forget that many other factors are operating at the same time that, though less conspicuous, may be far more potent, and may contribute largely to the production of the trouble.

The impossibility, under the most favorable conditions, of even approaching definite knowledge of the circumstances attending the origin of disease, constitutes the most formidable limitation of differential diagnosis. Just so far as our knowledge of all the circumstances and factors attending the origin of the disease lacks the precision of a chemical experiment, to that extent will doubt always attend diagnosis by this method.

There is a process, however, by which we are enabled to dispel much of this obscurity and secure to this method a much wider sphere of usefulness, viz., illumination. It is not strictly a method of reasoning, but is rather comparable with the preliminary weighing, testing and isolating of reagents for a chemical experiment. This process is

so well known that I shall not endeavor to discuss it.

Another inductive method employed in diagnosis is, concomitant variations, and is well illustrated by Sir Benjamin Brodie: A man consulted him for the relief of a very troublesome and persistent pain in the heel, that has resisted the measures ordinarily employed. Upon investigation it was discovered the pain was intensified when a small haemorrhoid was inflamed, and, *per contra*, when the latter became quiescent the pain subsided. Removal of the haemorrhoid was followed by complete relief.

This method of reasoning may be briefly stated thus: When two or more of a number of associated phenomena vary concomitantly, a causal relation exists between them. The nature and distribution of the sympathetic and cerebro-spinal nervous systems indicate a wide application for this method. Even in a limited experience many striking cases of inference by concomitant variations will be found: A patient, some years ago, consulted me for a difficulty in swallowing, that was intermittent, usually worse when constipation existed, but often equally bad after a drastic purgative. Upon examination she was found to be suffering from both external and internal haemorrhoids, and removal of these afforded complete relief.

Upon the most superficial consideration, it is evident that the concomitant variations of the haemorrhoids and the dysphagia were, of themselves, insufficient proof as to the one being the cause of the other; and even the fact that the latter was relieved by operation upon the piles does not make the evidence conclusive: But, at the same time, it is not inconsistent with sound reasoning to permit the concomitance of the variations of the two phenomena to have some weight in forming the diagnosis.

In November, 1900, a lady consulted me regarding pains referred to the region of the umbilicus. Temperature and pulse were normal; bowels regular; appetite variable.

She had been troubled for about three years; had been treated for displacement of the stomach, and for intestinal disorder, without benefit. When I first saw her, she complained that though she suffered considerably the night before, the pain was nearly gone that morning. I made a pretty thorough examination and found the right ovary prolapsed. During the subsequent weeks she was under my care, I discovered that after walking any distance the offending ovary became very tender, so much so that she was unable to bear any manipulation; and with this increase in ovarian tenderness the abdominal pain varied. I then made an exploratory abdominal operation, and found an inflamed and cystic condition of the displaced ovary, which was likewise firmly adherent. Since removal of the diseased organ, she has been not only free from pain, but there has been decided improvement in her general health.

It is very evident that the sympathetic nervous system affords a basis for concomitant variation between a pathological condition and symptoms more or less remote. The hypogastric plexus has an intrinsic and probable anastomosis with the solar plexus whereby all the abdominal and pelvic organs are kept in sensitive sympathy. The cerebro-spinal system, sending branches from a common trunk to different structures, may become the medium of concomitant variations; thus affections of the urethra may be attended with pain in the hip through sensory branches from the sacral plexus. A man had been troubled for years with pain in the hip, and from the history of some prior urinary trouble the surgeon was induced to make examination of the urethra, when a stricture was discovered.—The passage of sounds always relieved the pain in the hip. From this fact a diagnosis of the stricture as the causative factor was made with a certainty sufficient for all practical purposes.

In fact there is not a pathological condition of any organ that may not produce concomitant symptoms in some other organ, and these are prone to vary in intensity in consonance with the variations in the patho-

logical lesion, thus affording a basis for the operation of this method of reasoning.

Doctor Archibald McLellan, of St. Paul, has reported two hundred laparotomies, one hundred and fifty-eight of which were for diseased ovaries and tubes, in forty per cent of which the vermiform appendix was inflamed. He believes that dysmenorrhœa and other symptoms referable to the pelvic organs are, in a certain number of cases, the result of appendicular trouble. From statistics of this nature it is impossible to draw definite conclusions; but there seems little doubt that the right ovary and tube are concurrently connected with appendicular disease more frequently than are the left tube and ovary; and when there are symptoms of diseased right appendages there should be most careful observation or examination to determine if any involvement of the vermiform appendix exists; it goes without saying that in exploratory operations for diseased tubes and ovaries, the appendix should be carefully examined.

An inductive method of no little importance, may be thus stated:—When two groups of circumstances agree in the sequence of the same phenomena and differ in all other circumstances, there is a causal relation between the antecedent and subsequent.—If the dinners of two men agree only in the eating of mushrooms and differ in every other particular, and they are thereafter, simultaneously, taken with like gastric symptoms, there is room for a strong presumption that mushrooms, and mushrooms only, caused the disorder.

Articles of diet, climatic change, domestic environment, occupation, infectious and contagious diseases, epidemics, and many other pathogenic factors, are diagnosed by this method of agreement. The same limitations that are applicable to the method of difference are equally patent here.—There is the same necessity for complete knowledge of all the circumstances bearing on the cases, and the same impossibilities in securing such.

Again, the method of illumination has a very important place in diagnosis,—John Stuart Mill applied to it the name *Residues*, and in certain instances this seems more appropriate. When the severity or persistence of symptoms is greater than can be accounted for by mere impairment of function or inflammation, we very properly seek additional cause to account for the residual result. This method is supplementary to the pathognomonic method in the early detection of cancer and tuberculosis, diseases that, in their incipient stages, yield no definite pathognomonic evidence; but when there is a residual persistence and severity of certain symptoms over and above what can be reasonably accounted for by the more benign pathogenic conditions, it is proof of the presence of these maladies.

The method of simple enumeration is not so much concerned with diagnosis as with treatment, and no certain conclusion can ever be based thereon; the most that can be gained is a degree of probability. A discussion of this method would include a study of statistics, including their value and limitations; likewise consideration of the rise and fall of a great succession of pharmaceutical agents along with review of their claims to recognition: Some had an ephemeral existence by reason of professional ignorance and credulity: Some exist in a condition of "inocuous desuetude": A few have established themselves as being of relative value, and: Some there are yet *sub judice*.—

The wind blew east, and the wind blew west,
And the four blue eggs in the robin's nest
Will soon have wings, and beak, and breast,
And flutter and fly away.

By the method of enumeration, or rather by reason of a fallacy based thereon, mental healers, Christian scientists, and many patent and proprietary nostrums gain the confidence of the people.

To be complete a discussion of methods of diagnosis should contain some account of the laws of probability, but any attempt at even cursory description of the important

part they play in diagnosis is impossible within the limits of this paper.

The following are the methods employed in arriving at diagnostic conclusions:

Deductive.—The Pathognomonic Method:

Inductive.—The Method of Difference: Method of Concomitant Variations: Method of Agreement: Method of Residués and Illumination: Method of Simple Enumeration.

Not only are all diagnostic conclusions dependent on one or more of these, but without them not even the most rudimentary suspicion of a diagnosis could arise. The best way to learn to speak grammatically is not by studying grammar, but by early familiarity with none but correct forms of speech; and I believe it equally true that the best means of learning to reason correctly is, not by studying *methods*, but by a thorough course in the exact sciences. But such a course is unfortunately beyond the reach of the majority of medical students, accordingly I believe that a knowledge of the methods of reasoning might, with benefit, be added to the modern medical curriculum. A course of diagnosis should include both *methods* and physical examination; and knowledge of these would increase the benefits derived from clinical teaching, act as a stimulus to thorough and intelligent observation and investigation, and above all would enable the student, or practitioner with limited experience, to avoid conclusions not warranted by the premises and that, too often, are disastrous to both himself and his patient.

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Effect of Modern Lights Upon Eyes.—

The concensus of opinion, as set forth by the members of the medical faculty at the University of Heidelberg is, that light derived from incandescent burners, electric lamps, or gas mantles, is wholly harmless as regards healthy eyes:

The next thing to determine is, what is a "healthy" eye?

Correspondence.

EXTRACTS FROM THE JOURNAL OF A NAVAL MEDICAL OFFICER.

(Continued.)

June 1st. By this time the sand predominates over the dry mud and pebbles, and, in a word, all the way to Piura, and at Piura itself sand, white and clean, driven by the wind into little ridges or pretty big hillocks, forms the soil; yet pretty much all along there are trees, chiefly of one species, the acacia, and of all sizes; the old ones, or those where there is moisture, are as much as three feet in diameter, mostly stunted, like gnarled apple trees. The wood is almost as hard and brittle as glass and of dark color. The only other species I noticed, is a curious one, the name of which I do not know, with trunk, limbs and twigs of bright yellow green; these grow scattered about all through the sand—and through this region one may ride fifty miles, with his horse going at a walk, fetlock deep in sand. The river at La Huaca looked very pretty, and in its vicinity are seen numerous little patches of bananas, cane, cotton, vegetables, etc. A good part of this country in Inca times was artificially irrigated and portions of their works are still standing, much of which, with a little enterprise, could be utilized. Poor as the soil looks, there is no doubt that with water it would support great crops.

On the trip up I made the acquaintance of two men, one born in Ohio who had lived in Piura for many years, another an Englishman from Lancashire who is the head of a house in Callao which supplies beef to the navy and ships in general. The latter proved to be by far the more agreeable of the two, and we struck up an acquaintance, seeking lodgings together when we reached Piura. This Lancashire man goes all through this country, for hundreds of miles around, buying or selecting his cattle, which are afterwards sent to Payta and shipped, and consequently he knows Piura pretty well. It was dinner time (6 p. m.) when we got settled down in the Hotel de Italia—this and a somewhat smaller but neater one kept by a Chinaman, where we tried for lodgings in vain, constitute the only hospitals.

Piura is a very old—the oldest Spanish settlement in Peru in fact—and has from five to ten thousand inhabitants. It presents no especial signs of antiquity, however, and if there are any interesting points about its history I do not know them, for nothing is sold here in the way of literature except school books, and even photographs are not obtainable. The houses are all of *adobe* instead of split bamboo, and the thick thatch of the roof is always plastered with the same material; this with the lime-wash renders it impossible to guess whether a house is two years or two centuries old. There are regular streets and even street lamps, and many of the houses show wealth and refinement on the part of the inmates, though mostly low and not looking much from the street; when you look through the always open street door in the evening, you see a very spacious *patio* or court, and beyond a well lighted room with a lot of chairs set around wherein all the ladies of the family are collected, usually without any man in sight. I was told it was customary here to ask strangers to come in, and I myself in passing one of these houses of good appearance, fitted up in the manner I have described, was so invited by the *cholo* (Indian or half breed) servant sitting in the door. It is even not out of the way to exchange salutations with any of the ladies of the family. They may ask you to come in and give you a glass of wine; I do not know whether it would be etiquette to accept such an invitation or not. At all events, I did not, rather fancying—though I comprehended the invitation and could see that it was a fine house on the plaza in the most select quarter—that it must be a mistake, or some joke on the part of the servant, especially as this is not the custom among those Spanish races I have seen.

Payta, June 7th.—I have never seen closely any of the *huacas*, or burial grounds themselves. Darwin mentions them casually in his "Voyage of the Beagle," and I am told here that the pottery requires to be wrapped in cloths as soon as exposed to the air, otherwise it is apt to fall to pieces; likewise that it is quite an art to dig it up properly. It is undoubtedly curious ware, and specimens are far from common even in South America.

It seems likely that we shall go to Callao

in time for the election, the last of this month, when the revolution season is considered on. A portion of the Peruvian army came here the other day *en route* to Piura in anticipation. This mongrel *rout* have the reputation of not being good to meet at night in the streets, and people with money about them, to adopt a vulgar expression, are wont to "roost high," when they are about. In the Custom House, to-day, I saw a government proclamation which invited all persons possessed of arms or any munition of war, to turn them in at once, under dire penalties. This, I presume, is the first step to prevent revolutionary proceedings, and it has also led to domiciliary visits, etc.

June 14th. We have had no illness to speak of on board of ship, and the climate (it being now about midwinter) is very good indeed. The temperature is not lower than sixty-three degrees at any hour, even with a breeze, and seldom more than seventy-eight or eighty; and of late, nearly every night, a strong land wind arises about midnight, but the harbor is so sheltered by the high bluff, there is rarely any sea "kicked up." We are promised a great *fiesta* on the 8th of the month, one of the grandest, if not the very best, of the year: The image of Saint Peter is to be taken fishing with all the pomp the church can give, and the bay is expected to be crowded with boats in gala dress. Extensive preparations have been under way for weeks, and no doubt it will be very diverting. Another *fiesta* is that of Saint John, which also comes this month, but I am in doubt which Saint John it is; but Saint Peter, of course, is the great man in this fishing seaside place.*

June 17th. Payta is becoming exhausted and I hardly go ashore once a week. To-day I spent the afternoon mostly in reading a book which I took with me on the balcony of the Club. One might, and perhaps ought to, walk on the *mesa*, for though the sun is warm the breeze is cool enough when one gets to the top of the bluff:—I think it is the desperate flatness and sterile uniformity of the scenery that makes it unattractive. Certainly I should not stop for hot weather in a country like that around Rio de Janeiro, but here, now that the novelty is a little worn off, it is too much like exercise of duty to plod along over the arid plain without any variety of scenery, and with hardly a living

*Unfortunately we left Payta before the Saint was taken out fishing, so missed the display.

thing in sight except the *gallinazos* (turkey buzzards), the universal and much respected scavengers of all this country. Seen in the distance this bird has a very graceful soaring flight; he is more awkward in appearance near by, something like an imperfect under-sized turkey, with red head and red feet; and it is only when you see him pretty close that his sordid shabbiness comes out. I hope to see the great condor before long—he does not come this far north,—and though he is said to be disgusting enough his size causes him to be respected.

At the invitation of the cable manager here, a man named France, English by birth but, as I judge, still of mixed race, I went fishing the other day.—France has been very chummy with the ship, finding, I suppose, but few of his own tongue to talk to, and he is, on the whole, a rather well informed and well behaved sort of fellow. Though we left the ship at 3 A. M. I did not regret the trip and would like to go again in spite of the fact that we caught but little. We of course started long before daylight, but there was a grand full-moon, and not a cloud in the sky, while the sea was like a mill pond; and yet, though the temperature was certainly not below sixty-three degrees, it was decidedly cold, and overcoat and flannels were most comfortable. France possesses a large comfortable boat, manned by two boys and a *padron*—the latter a sort of ex-fisherman, of very coppery hue, whose chief duty it was to manage a set line that had been prepared and baited the evening before with 150 hooks; it is a matter of considerable dexterity in paying out and taking up this line in order to avoid fouling the hooks. Along with us was a Frenchman, La Porte by name who, I suppose, is a clerk somewhere here, and who, though miserably cold, was always cheerful. We pulled a couple of miles or so from the ship, and then set our line in about six fathoms, after which we moved some distance further in order to fish by hand. We had an abundant lunch, and even the means of preparing hot coffee, so the trip was no hardship; nevertheless the fish did not bite. I caught exactly one, and had as good luck as the best. The set line was more successful and on it we took two or three large fish known as *corbinas*, very handsome with many golden or coppery scales, and weighing ten or fifteen pounds each; also a lot of eels, but of no very great size. After visiting the set lines two or three times it was decided we had enough of it,

and so returned to the ship, arriving in time for an early breakfast—at eight o'clock or so. The break of day was one of the finest I ever saw, from the first faint tinge of red on the horizon to the appearance of the sun,—it, the moon, and the brilliant morning star, all shining at once. Especially striking was the indescribable change of the sky from neutral night tint to the faintest and yet purest of blues. I felt none the worse for the expedition though the wind, that sprang up at sunrise, and the light burned me (being unaccustomed to the open air of late), and for a few hours I was quite puffed up about the eyes.

I have just broken off to pay my wash bill to the heathen Chinee, whom we maintain on board. It amounts to a respectable sum, for this time and the last, but still less than we would be obliged to pay ashore, especially as there is no fresh water to be had except that brought a distance of many miles—formerly in kegs on donkey-back, now by rail,—and peddled out at prices ranging from one to five cents a gallon; in old times it must have cost much more, and Darwin mentions paying three pence for a wine bottle full. It is stupid here, now that the first surprise one feels at the sight of the country has evaporated. I presume if I could see a real desert, as that of Atacama (in Northern Chili) is said to be, I should not be much impressed by it, particularly as Darwin noticed the same result in his own case fifty years ago. Conversely, I doubt not that the sight of our own country at this season would be like a revelation of Paradise.

June 26th. We shall probably leave here the 28th for Callâo, and take a good long time in going as it is to be under sail in order to exercise the crew. I am not at all sorry to leave, besides have had more bother than I expected with some remittent and other malarial fevers, which seems to be brought out by the very desirable coolness of the climate as compared with that of Panama, although nothing serious. Fortunately, moreover, these fevers are not of an infectious nature.

Callâo, July 9th.—Yesterday we came up to the anchorage here from San Lorenzo Island, four miles away. There is no bay or harbor, properly speaking, not half as much as at Payta, but the high Island of San Lorenzo (about 1,000 feet at its highest part, and five miles long) runs straight in front of the town and so gives a sort of protected anchorage.—In reality there is no real bay

or harbor anywhere on this coast. The island would seem the extreme of desolation were it not for Callao—steep sides of sand or bright mud, but a solid backbone of granite rock. There is some little appearance of vegetation at the top, and in some places the Irish potato has grown wild from time immemorial, and is thought by some to be the home of this tuber, which by the way is a vegetable I revere so much that I am going to explore this primitive potato patch. At this season of the year the sun shines no more than (indeed not half so much) at Payta, and as usual geographical works deliberately lie to the youth of our country in saying this is a rainless land. It frequently drizzles enough to wet our decks or make the streets muddy, is always overcast, foggy or misty; but the people do not choose to call this drizzle by its right name, but speak of it as *garua*, or "dew." It is, nearly always, impossible, in consequence, to get any extended view of the scenery; but yesterday I obtained a glimpse that showed that Callao is built upon a low plain not much above the sea level, while Lima, seven miles inland and straight up a broad, level valley, is visible even in the mist, its spires looming up in a remarkable way, when the distance is considered. When the weather is really clear it must be a noble prospect, from all accounts, the Cordillera rising to a grand height in the background—terraces of mountains behind terrace; but so far all this has been invisible.

Callao is a city of perhaps 25,000 inhabitants, and from the sea, appears to be built solidly, but this is not the old Callao, as the latter, like old Panama, is some miles away and mostly under water, having been wrecked, destroyed in 1743, or thereabouts, by an earthquake shock and resultant tidal wave. The harbor—if the roadstead may be so termed—after that of Payta looks quite lively, as there are a good many square-rigged vessels at anchor about us, besides a number of steamers. There is always one man-of-war, however, a Chilian, a very fine modern English-built vessel called the "*Esmeralda*." This last war between Chili and Peru, when the latter was completely conquered and lost much territory, was a barbarous and savage one,—a real Turkish or cannibal affair,—and the Chilians are naturally cordially hated everywhere. Admiral Castillo, whom I met in Paris, seemed civilized enough, and no doubt so are many of the higher officers, but the rank and file are

beasts (as also are the Peruvians) without half so much courage. I hear the Chilian officers, many of whom speak English, find it uncomfortable here, for when ashore they are constantly insulted by the rabble, yet are forbidden by their government to enter into any quarrels. I am told there is not any shipping here hardly as compared with what there used to be before the war, and both Callao and Lima have fallen off greatly in population. One old hulk, anchored here and housed over in some queer fashion, with lower masts still standing, attracted my attention by her venerable appearance which still had something very war-like. I subsequently found out she was once a fine frigate in the English navy, the "*Nereid*" and was with Nelson at either the battle of the Nile or that of Trafalgar.

Seals are numerous in the harbor, and having formerly been protected are pretty tame, swimming about even among the vessels, but unfortunately they recently are allowed to be hunted.

July 11th. I have just returned from Lima where I stayed last night. It is a large city and has been larger. I have never seen in any of the Spanish cities such large and spacious houses, though they are never more than two stories in height; all have a great court inside, with apartments opening off from it in galleries, Moorish fashion. The older dwellings have balconies overhanging the street,—projections rather of the house itself.

July 16th. I have only just begun, in my two or three visits to the shore, to get acquainted with the localities of Callao and Lima; one or two books I have found, after much search of the shops, relating to the latter place, and also a map. It is easy to see there is not much care for anything historical here, and yet there is perhaps more to appeal to the imagination in Lima, than almost any other city of the New World, and the general aspect of the town is, at the same time finer though, withal, more antiquated than any other I have ever visited, not excepting Havana. Perhaps the great number of very fine churches has something to do with this; certainly I never saw so many in a town of this size. There is something quite imposing in the mere magnitude of these buildings and the massive thickness of their walls, which are probably built, except the facing, of *adobe*—I have seen them ten feet thick. There may be 100,000 inhabitants, but as before remarked, the popu-

lation is much less than before the Chilian war. It is a very regularly built town, like most Spanish ones, and the streets are usually equi-distant and cross one another at right angles; they do not, however, exactly follow the cardinal points owing to the fact they are so arranged that the house walls shall cast a shade on one side or the other on hot summer days—a very artful notion. The River Rimac runs through, or rather along one side of, the old city which, up to comparatively a few years ago, was still walled; at present in the winter there is very little water in the bed of the stream, but in summer, when the snow melts in the Andes, there is a goodly body. All this valley is irrigated, canals and sluices being provided with connection from the river, so that all the way up from Callao in the train you see these little water-ways, or ditches rather, on either side. The current runs swiftly, too, for Lima is about 500 feet above the sea, and though the rise is not perceived in going up, on the return it becomes most evident. As this is the largest and finest city of the West Coast, Valparaiso perhaps excepted, and the best I am elected to find during this cruise, I am inclined to expatriate upon it, more particularly as there is much of historical interest attached thereto. I have got hold of Prescott's "Conquest of Peru" in Spanish, which I am reading diligently, and the localities are still plainly identified though I fancy there is nothing at all here (or at least very little) that was founded by Pizarro when he built the city about 1535. Here he was killed, and though none of the buildings remain, the sites are the same, and certain residents seem to believe the house still exists just across the wide *plaza*, in a little lane from which the assassin rushed out about noon of a Sunday in 1541—for all of which I refer to Prescott. Also no doubt, the cathedral to which his body was taken, wrapped in a sheet, and buried just as he fell in a dark corner, stood on the same side of the *plaza* as the present one; but not only was that original one replaced by another, and that by a third, but the one now existing was almost wrecked by the great earthquake of 1746 which destroyed Callao, and had to be quite rebuilt, and the two towers which look so venerable are really not one hundred years old. Many of the other churches appear to have resisted that and other shocks, and one sees dates going back to the seventeenth century or earlier; but there is really little antiquity to most of the houses. One

of the greatest buildings, to my thinking, is that of the *Casa Torre-Taglis*, which was, as some say, the residence of one of the vice-roys, and that, certainly, must be much older than that date; the balcony is wide and the little twisted balustrade looks very ancient.

(Continued.)

Trichinosis, Case of.—

This was exhibited by Doctor J. Chalmers Da Costa at the Neurological Society of Philadelphia recently. The patient was a male, twenty years of age, with a history of traumatism on the calf of the right leg by a bicycle pedal last autumn. He ate pork four times a week, but not raw, and at times raw beef. Since January 1st, 1901, the right gastrocnemius has been swelling and causing pain at night; and later the thigh became involved, the swelling being marked. Examination of a bit of incised muscle showed the presence of very numerous trichinæ. Several blood examinations were made, the largest number of eosinophiles being four per cent. The leucocytes increased from 12,000 to 20,000. The case was notable for the entire absence of the symptoms usually belonging to trichinosis.

Sleep, Best Time for.—

Is there any truth in the old adage that an hour before midnight is worth two hours after midnight? I had an opportunity to make some study of this subject while in the naval service. On shipboard officers and men alike stand four-hour watches day and night, and are obliged to get their sleep irregularly; to so arrange it that the same man shall not be obliged to take early or late watches continuously, the "dog watch" of two hours is interpolated, thus adding to the irregularity. In watching the results for over two years I could never discover that watch officers and men were not as fully refreshed by their sleep as medical and pay officers, who stand no watch, and have hours as regular as those of any householder.—COLBY, (*New England Medical Gazette*.)

"Urine."—

This substance, described by Moor, appears to have no existence. It is probably a strong aqueous solution of well known urinary solids, and of chemicals employed as reagents.—WOODS (*Medicine*).

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

DR. G. ARCHIE STOCKWELL, Editor.

—ISSUED BY—

THE J. F. HARTZ CO.,
Publishers, Booksellers and Importers.

Note.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, at 270 Woodward Avenue, Detroit, Michigan. U. S. A.

DETROIT, MICH., MAY, 1901.

Editorial.

YELLOW-FEVER, AETIOLOGY AND CONTAGION OF.

A recent report, embracing these topics, emanates from a committee who worked under the auspices of the Army Medical Department and "conducted a series of experiments in Cuba." The decision arrived at is, that a certain form of mosquito is wholly responsible for the malady, and particularly for its dissemination; that the hitherto accepted theory of the contagium being spread by contact, or through household *lares* and *penates*, is wholly untenable. The report further dogmatically affirms:

The fever is not conveyed by fomites, hence disinfection of articles of clothing, bedding or merchandise, supposedly contaminated by contact with those ill with the disease, is unnecessary. A house may be said to be infected only when there are present within its walls contaminated mosquitoes capable of conveying the parasites of this disease. The spread of yellow-fever can be most effectively controlled by measures directed to the destruction of mosquitoes.

Thus all the aetiological problems presented by this grave scourge of the tropics would seem to be conclusively settled, including also its propagation and dissemination. Nevertheless, certain facts and queries with relative bearings require to be explained ere the theory imparted can be definitely accepted.

Yellow-fever, though for the most part confined within definite localities of the tropics and sub-tropics, sometimes breaks all pre-conceived records, overleaps isothermal boundaries, and manifests itself in districts far within the temperate zones. It has been epidemic within the memory of the older generation in the city of Philadelphia; and more than once has appeared sporadically in New York City, though, as regards the latter, it may be stated, the infection was derived from a lower latitude. A pertinent query then is: What was the rôle of the mosquito during the Philadelphia epidemic?

Also, in the early 'Fifties, coincident with the craze for connecting all inland water-ways by systems of canals, an attempt was made to effect a junction between the Maumee and Wabash rivers. The excavating was being done in mid-summer; the season was marked by extremes of heat and drought; and while work was in progress through a dried-up swamp in Ohio, an epidemic broke out among the navvies that so closely resembled "yellow jack," even to the extent of the profound and characteristic icterus, that it puzzled all yellow-fever experts: Many victims of the epidemic died with "*black vomit*." Only for the fact this fever originated sporadically, and so far north of the isothermal supposed to limit its ravages, it would have received the usual baptism; but because of the reasons just given, it obtained the titles of "pernicious bilious remittent," and "pernicious malarial fever." The concensus of opinion among experts, however, was that the epidemic was one of true yellow-fever due to the upturning of soil that, through heat and drought, had developed a yellow-fever nidus.—And here, *en passant*, it may be said that the relationships existing between malarial and yellow-fevers

have never been carefully or thoroughly worked out, with the result that many cases are annually diagnosed in tropical localities as malarial and bilious remittents that, had the more grave disease been rampant, would have obtained the fulvous designation: and, *per contra*, when yellow-fever is epidemic, cases of bilious remittent fever are diagnosed as mild manifestations of the former.

During the later 'Sixties a severe epidemic of yellow-fever broke out in Rio de Janeiro and ravaged a locality (exclusively the best of the residential district) that had hitherto practically escaped—only sporadic cases had ever been known therein. The fever passed from house to house on certain streets, while dwellings a half-block or a block away, largely escaped; moreover the scourge was out of season, and there were no cases in the lower parts of the city, at least not until the epidemic had fairly worn itself out in the better portion. The track of the malady coincided precisely to the upturning of the soil, in an attempt to provide a better system of sewerage for this quarter of Rio; it likewise twisted around corners, up one street and down another, exactly as did the excavations. It would seem a "far cry" to accuse the *Anopheles* of complicity in this instance.

Again, only a few years since, a ship arrived at Kingston, Jamaica, from a West African port, that presented a clean bill of health and moreover subsequently underwent a most rigid quarantine. A few weeks after her cargo had been removed, she began the discharge of some earth, carried in the hold since a previous voyage (taken on at Montevedio, and in part taken out at Liverpool); this earth had become saturated with bilge water, and once disturbed developed a very bad odor, so much so that it was transferred to

lighters and dumped far out at sea. Nearly every person who came under the influence of the emanations from this soil was seized with yellow-fever, though the disease at that time was unknown in Kingston, and did not develop in this city during that season. The master of the vessel and his wife, who were visiting the family of the consignee at Spanish Town, and the supercargo, who was absent in another part of the island, alike escaped the infection. After all the earth had been removed the fever subsided.

The British freighter *Curlew* left Rio de Janeiro in May, 1900, at a time when there was no fever at this port; moreover no illness was contracted there, and none *en route*. With the cleaning of the ship at a northern port in the subsequent July, yellow-fever developed among the crew in less than ten days thereafter.

The complicity of the mosquito in any of the foregoing cases is, to say the least, problematical. It can hardly be presumed that these insects made a special incursion to a northern clime to infect the navvies engaged upon the excavation in Ohio, or later to disseminate disease among the crew of the *Curlew*.

Again, more than once it has happened that ships sailing from a northern port (Liverpool or Boston, for instance), with entirely new crews, and without touching at any point known to harbor the yellow scourge, but with bilges uncleaned since a previous tropical voyage, on reaching equatorial latitudes—becoming becalmed for days, even weeks perhaps, in that mysterious portion of the Atlantic denominated Saragossa Sea—suddenly developed an epidemic of yellow-fever. Here the *Anopheles* can not be considered even a secondary factor, since mosquitoes are unknown in mid-ocean.—And (to pass for the moment to a consideration of malarial

fevers) attention may be directed to the evidence afforded elsewhere in this issue of the JOURNAL—(page 47) wherein the author of "Extracts from the Journal of a Naval Medical Officer" mentions maladies of this class developing on ship-board at the anchorage off Callão, and where—as the editor can aver from personal knowledge—mosquitoes are chiefly conspicuous by their absence! Any one at all familiar with naval affairs, on perusing these letters, will realize how impossible it was that any of the crew should have been infected, unless the victims themselves carried the infection for a period of three months or over, in fact since liberty was had at the island of Tobago, off Panama, prior to April 10th. Only the stewards and those attached to the ship's steam-launch had any communication with the shore; and the author informs us these, and the officers, one and all, escaped.

From the evidence afforded, it is manifest that *Anopheles* can in no way be held as inevitable in producing yellow-fever; though it is possible they may, in many instances, be material factors in its dissemination. With the existing state of our knowledge, then, no hard-and-fast scheme of ætiology can be accepted as accounting for all the phenomena that, respectively grouped, constitute the specific evidences of either malarial or yellow-fever; and the same is equally true of certain other tropical and sub-tropical pyrexias.

The mosquito is ever in bad odor, and at best must always be deemed a pest; but the eradication thereof may be attended with even greater evils than those which it is accused of fostering and propagating. The rôle of the creature in the scheme of Nature is not by any means well understood; yet, that it serves some especial and good purpose must be evi-

dent, else its distribution would not be so universal—as a matter of fact these insects are found from the Equator to the furthest extremities of continents that penetrate the Arctics, and are much more virulent in the brief summers of the frigid zone than in the dank morasses peculiar to the tropics.

While ætiologists are chasing a "will-o'-the-wisp" and making specific charges against certain insects, it might be well for them to delve into the history of the past, when the fact will be made patent that the same theory, practically, was exploited seventy-five or more years since, and its fallacy subsequently shown. Professor João Vicenti Torres Homen, of the Medical Faculty at Rio, called attention to the foregoing a quarter of a century since, and likewise remarked upon the resemblances existing between all forms of paludal fever. A perusal of his exhaustive work, which unfortunately has never been translated wholly into English, will prove of inestimable value to those possessed of a knowledge of the Portuguese tongue.

Returning to the rôle of the mosquito, we are forced by analogical reasoning to believe that it serves some especial purpose, and that it is beneficent rather than otherwise, despite the annoyance it causes. The history of the past is prolific in unfortunate results that have accrued to the extermination of creatures deemed pests; and the abrogation of one form of annoyance only assures another perhaps more virulent or dangerous. The question then arises—supposing the theory of infection from the mosquito can be definitely and universally proved—From whence does the insect derive its poison? This swings us back upon the cycle to the point where swamps and pools were regarded as the sole and absolute sources of the scourge,

and these, without the insects, may prove much more dangerous than at present.

It is worthy of remembrance that man's attempts toward re-arranging and re-balancing Nature have ever been unfortunate, often pernicious, especially as regards the welfare of his own species.

PSEUDO-TUBERCULOSIS.

The brief article presented in this issue from the pen of Doctor Wm. F. Metcalf, is not only timely, but possessed of special interest as indicating the common misapplication of the term *tuberculosis*—a word that is in no sense descriptively pathognomonic, though the converse is generally imagined. It also evinces the incorrectness of the term employed by Doctor Metcalf as the caption to his paper, and that in an equally improper manner is made to serve a like purpose to these comments.

The editor of this Journal has, in the past, repeatedly pointed out the fallacies attendant upon the general use of the words *tubercle* and *tuberculosis*. The latter especially has been, and is, accepted as indicative of a pathogenic entity characterized by the presence of, or primary invasion by, the so-called tubercle bacillus. The fact is, however, that tubercle is often a normal sequence to a metabolic process that has for its object, in the scheme of Nature, the segregation and removal of an offending nidus, the pathogenic significance of which may be of either major or minor importance; it may be (as in the example given by Doctor Metcalf) either a foreign body, inert perhaps, *per se*, or a disease process developed within the economy as a result of a micro-organism. It also goes without saying that one may be, frequently, complimentary to the other.

It therefore seems advisable that the

word pseudo-tuberculosis should be entirely banished from use, inasmuch as it is, to say the least, an unpardonable solecism; also that the term *tuberculosis* be relegated to the limbo of the unknown, or retained merely as a synonym for pathologic sequences of general character, such as are in no way dependent upon the presence of a specific bacillus. This would also necessitate a new differential title for the micro-organism now universally termed the *Bacillus tuberculosis*, one that is more indicative of the pathologic rôle of this germ. As the matter stands, no little confusion often results, leading to errors in diagnosis, prognosis and therapeutics, alike. It may be here remarked that Doctor Heneage Gibbes, some years since, pointed out that tuberculosis and phthisis pulmonalis were by no means cognate terms, and that the latter might obtain without the presence of either tubercle or the so-called tubercle bacillus.

.....

We have taken the liberty of altering the nomenclature slightly in Doctor Metcalf's article, substituting the family designation for the specific title employed by him in describing the ixode. Doctor Metcalf presumed the offending creature, to be the *Ixodes ricinus*, but this term is specifically indicative of the European dog-tick. Since the order *Acaridæ* numbers more than a score of families, and the twelve known genera present species innumerable,—with new additions thereto almost every day,—the recognition of the insect is practically impossible.—The entomology of the sister republic of Mexico, (and even that of Florida) has never been anything like thoroughly exploited. The creature, however, is identified as a form of wood-tick, both through the description and its mode of attack. All this family, in the early stage of development,

are herbivorous and non-parasitic, but the adults fasten themselves on various animals for the purpose of feasting upon their blood. The females are capable of great distension, and the annoyance that arises from these creatures is generally from this sex. The males are smaller and less active, but with greater difficulty removed: Thus the two that attacked Doctor and Mrs. Metcalf, may be assumed to have been of opposite sexes. In all the *Ixodes* the rostrum and mandible are fitted for sucking, and the tarsi have likewise a sucking disc, besides two claws that enable the creature to maintain a firm hold, once lodgment is effected beneath the integument.

EDITORIAL NOTES.

The Plague.—

It is only by an occasional grouping of scattered press dispatches that the progress of the bubonic plague in widely separate parts of the world becomes manifest. At Canton, China, there were 10,000 fatalities from this scourge alone during the six weeks terminating with April 11th. In the Bombay Presidency, India, there were nearly 1,800 cases with 1,300 deaths in the week ending February 8th. In the affected districts of Russia the disease is abating; on the contrary it is increasing in Cape Colony and threatens the remainder of South Africa.

Deaths from this cause have recently been reported at New Orleans, San Francisco, Valparaiso, Rio Janeiro, Lisbon, the isle of Mauritius, Hong-Kong, Sidney, N. S. W., Honolulu, and in the Argentine Confederation. A case is said to have occurred at one of the inland towns of Michigan as a sequel to bacteriological study and infection, but the evidences thus far afforded are not wholly of a satisfactory character.

The English Tongue in Germany.—

Emperor William has ordered the compulsory teaching of English in the high schools of the German Empire, and that French, hitherto a *sine qua non*, be made optional. The change is significant of the increasing importance of the English-speaking peoples in the world's affairs, and especially in commerce and industry.

By the way, American practitioners who profess to have studied in Berlin and Vienna, before boasting thereof should at least be prepared to give evidence of some practical familiarity with the German tongue. One of our young *confrères*, with more *boast* than acumen, was recently placed in a very embarrassing and unenviable situation because of such claims, and forced to admit that his foreign education was almost wholly limited to *beer!*

New Species of *Ovis*.—

A new form of mountain sheep has just been recognized by Director Hornaday of the New York Zoölogical Park. The specimen that gave rise to this event, came from the vicinity of Dawson City, and has been baptized with the specific title of Fannin (*Ovis fannin*) in honor of the curator of the Provincial Museum of Natural History of British Columbia. The animal in question is known in the Klondike as the "saddle-back" or "piebald" sheep. The head, breast, neck, abdomen and inside of fore legs are snow white, while the rest of the body is of a brownish gray hue.

American Filters.—

It is announced that the commission of sanitary specialists, recently in session at Moscow, Russia, unequivocally condemned American water filters, as being "wholly ineffective."

Items and News.

Extraordinary Prolificity.—

A linen-weaver's wife, forty years old, married twenty years, bore in eleven pregnancies thirty-two children: At the first labor, *quadruplets*; at the second, *triplets*; the third, *quadruplets*; the fourth, *twins*; the fifth, *triplets*; the sixth, *twins* (still-born); the seventh, *triplets*; the eighth, *triplets*; the ninth, *twins*; the tenth, *triplets*; the eleventh, *triplets* (two stillborn). Twenty-six of the infants were males, and six females. The father was one of twins; the mother one of quadruplets of a mother who had borne thirty-eight children. The woman had been epileptic from her fifteenth year, the attacks recurring unchanged during successive pregnancies. The woman is now in her twelfth pregnancy.—VALENTA, (*Wiener Medicinische Wochenschrift*.)

Chloroform and Oxygen.—

The favorable results accruing to recent experiments by Wohlgemuth in giving combinations of oxygen and chloroform, are condemned by Aronson as impracticable and of no value; in this he is born out by Zuntz.

If the combination is pushed to the fatal point the oxygen appears to have not the slightest influence in saving life. Wohlgemuth undoubtedly had better success than Aronson, owing to the fact he employed the oxygen under pressure thereby securing better combination with chloroform. Experiments in Zuntz' laboratory show that compressed air similarly combined with chloroform is equally efficacious.

Malaria, Prevention of.—

Among the provisions of a new law proposed for Italy, looking to prophylaxis of diseases of so-called "malarial origin" is, the gratuitous distribution of quinine to the poor by the authorities, and includes a reward for those who will protect their houses and manufactories against the entrance of insects.

New Surgical Invention.—

A sewing machine for the skin has been recently invented by Doctor Paul Michel, who exhibited it at the late Congress of Medicine.—*The Globe* (London.)

A Japanese Hospital.—

The hospital at Kobé is very large and evidently well patronized. It has eighty trained nurses, an average of two hundred and fifty patients, and its reception rooms for outdoor patients are crowded to overflowing. The general operating room for third class patients, interested me more than anything surgical seen in Japan. Here several operations were being performed at one time. The anaesthetic was administered and, in fact, everything connected with each case was done in the same room. There are no preparatory anterooms for undressing or dressing. Female as well as male patients were admitted, treated or operated upon as occasion demanded, or their turn came. I noticed one surgeon operating for urethral stricture in the male; another setting a broken arm for a little boy; meantime a third was doing gynaecological work. Seven physicians remain at the hospital all night, and the others live at different parts of the city. I could not learn how many were connected with the institution, or how they were appointed.—REGISTER (*Medical Adviser*.)

The "Canals" of Mars.—

The French astronomer, Flammarion, induced a number of persons to observe the moon with the naked eye, and then to report what they had seen by drawing sketches of the lunar disk. It may here be remarked that the full moon seen by the naked vision covers about the same space as Mars when viewed with the average power of a telescope. The result of this experiment was, the production of a series of sketches showing so-called "seas" of the moon represented as elongated markings, sometimes as lines, and occasionally as parallel stripings, recalling in a general way some of the pictures of the so-called "canals" of Mars.

Flammarion remarks that these drawings are a lesson as to the value to be attached to observations of things at the limit of visibility.—*Youth's Companion*.

Old versus New.—

Careful search of literature will often bring to light many facts that, without such industry would lie buried for years. The late history of spinal anaesthesia is a notable case in point.—*New Orleans Medical and Surgical Journal*.

Bullet in the Heart.—

Evidence that a man may live with a bullet in his heart was afforded by the use of the X-ray upon Charles B. Nelson, of Cadillac, Michigan, who was a central figure, a few years since, in a sensational shooting affray that nearly resulted in his death. Under the fluoroscope the ball can be plainly seen rising and falling with each pulsation of the organ. The missile has been imbedded in the heart since the night of July 1st, 1896.

Only in Self Defense.—

An elderly woman who had brought up her children on the "Go-and-see-what-Joe-is-doing-and-tell - him - to - stop,-and-if-he-won't-stop-whip-him" lines was talking with a young mother about her hopeful, and it came out that he had been spared the rod.

"Do you mean to say that you never whip him?" exclaimed the elder woman.

"No. That is—never—except in self-defense," was the faltering reply.—*Youth's Companion.*

Prognosis in Acute Disease.—

In making a prognosis one must consider the inheritance, past history, present condition, general physique, and habits; also the condition of the circulatory, respiratory, digestive organs, skin, and kidney must be considered. Learn to trust the human body. Treat the patient, not the disease.—*Medical Record.*

Suggestive.—

It was once stated in the New York General Assembly that "Charlatans first try their treatment on public men in order to use their names;" but to-day the patent medicine men first try their nostrums on the clergy, who are trained to accept things by *faith*.

Responsible medical men try their theories upon dogs.—PARHAM.

A Deserved Memorial.—

A movement is on foot to erect a monument to Doctor Alexander Skene of Brooklyn, N. Y.

Self-Measured Wisdom.—

We think our fathers fools, so wise we grow;
Our wiser sons, no doubt, will think us so.—
Pope.

A Scottish Echo.—

Sims Reeves, the well known tenor, was fond of telling a story that related to an early engagement in Glasgow, which was arranged through a metropolitan agency. One of the items on the program was "Hail Smiling Morn," and, of course, Mr. Reeves was to be taken for the solo portion. The chorus consists of an echo, and the London agent assured the soloist that a satisfactory choir had been engaged. Mr. Reeves was at first disinclined to accept, as other engagements would prevent his reaching Glasgow in time for a rehearsal with the choir.

"Don't worry about that, my dear sir," said the agent. "You will find the choir perfect."

The concert was a success, and in due course, "Hail Smiling Morn" was called for. When the soloist came to the lines requiring an echo he delivered them in his best manner—

"At whose bright presence darkness flies away—"

Imagine the horror when the echo repeated his words in the broadest Scotch:

"Flees awa', flees awa'!"

Yet Sims Reeves declared that not a person in the audience smiled or appeared to see anything incongruous.

Urinary Analysis.—

It has always been the custom to examine, when possible, that portion of the urine first voided in the morning; but more definite information may be had by an examination of the secretion after the days' restlessness and activity is over, or a sample representing the total amount passed during the twenty-four hours.—GRADWOHL.

Congenital Anonychia.—

Jacob describes three children in one family, healthy, well developed, and of robust parentage, who have no traces of nails on either fingers or toes, except on one finger in one girl.—*Deutsche Medicinische Wochenschrift.*

Exactly!—

Some of the medical experts are saying there is an affinity between red hair and rheumatism. Where does the relationship of the white horse come in?—*Free Press* (Detroit.)

Book Reviews.

Feeding and Nursing the Baby. By Charles Douglas, M. D. Cloth; 16 mo.; pp. 611. Price, \$3.00. The J. F. Hartz Co., Publishers, Detroit, Mich., 1901.

"The object of this volume is to assist mothers and nurses to realize the proper means (and also *all* of the means requisite) to rear strong, well-developed children. Coupled with this knowledge is the necessity of also making use thereof, at the proper time, in the dietary and management of infants."—Such is the claim set forth by the author in the first two paragraphs of his preface. But on examining the work critically, we find it has a greater scope, in that it has brought together a great amount of information in one volume which is only to be obtained by perusal of a score or more; moreover this information has been carefully sifted until only the most useful and practical is given space. This work is practically essential to every medical student, and no physician can peruse it without benefit—without discovering an amount of material which otherwise might be overlooked, or that may have been forgotten. The work is a reminder of the most practical side of life as exemplified in the care and training of the young; and not only that, but the author likewise adds the results of a long and ripe experience obtained during the seventeen years and more, in which he has been engaged in the practice of medicine, both general and special.—There is probably no one in North America more familiar with the "ups and downs" of infantile life than Doctor Douglas.

We cordially recommend this volume to physicians and students, not only as a text book, but as a work of ready reference; likewise as a volume which they can safely place in the hands of mothers and nurses.

The work is written with a freedom from technical language rarely found in books of this character, and consequently can be made fully available by those who have not had special training in the matters of which it treats. A complete index adds very materially to the value of this volume, and a resumé of the contents of each page appears at the top thereof, further facilitating ready research.

The A. B. C. Manual of Materia Medica and Therapeutics. By G. Hardy Clark, M. D. Cloth; 16 mo.; Price, \$1.00. Boëricke & Tafel. Philadelphia, 1901.

The author argues from the standpoint that the physiological effects of drugs are divided in-

to two classes, the non-toxic and the toxic, which are diametrically opposed to each other; that the non-toxic doses of drugs are curative of diseased conditions similar to states induced by toxic doses of those drugs. By referring only to toxic effect of drugs, their therapeutic uses in non-toxic doses, the relation of the two as indicated by numerals, the whole subject is so simplified as to be brought into small space.

Method of Influencing the Sex. By W. G. Tilghman. Paper; 24 mo.; pp. 28. Price, \$1.00. Published by Jno. A. Germond Co., Interlachen, Fla.

This work will be found of interest to those who imagine that sex can be influenced at will. There is nothing new therein, however, as the same precise claims are advanced that have been common property for the last two centuries, namely, intimate relationship of sexual conjunction to the early or late period of ovulation.

The volume is a very concise and practical resumé of the subject from the standpoint of the individual author.

The Youth's Companion. Price, \$1.75 per year. Perry, Mason & Co., Boston.

The volume of this estimable family newspaper for 1901 marks its seventy-fifth year of continuous publication—seventy-five years, during which it has had the approval of three generations of readers. The constant aim of The Companion is to carry into the home reading that shall be helpful as well as entertaining—reading that shall contribute to the pure happiness of all the family. There will not be an issue during the entire year that will not be crowded with good stories and articles of rare interest and value. A descriptive announcement of the Diplomatists, Explorers, Sailors, Trappers, Indian Fighters, Story-Writers and Self-Made Men and Women in many vocations, besides popular writers of fiction, who have been engaged as contributors to the fifty-two numbers of 1901, will be sent free to any address, with sample copies of the paper.

Braithwaite's Retrospect. By James Braithwaite, M. D. Paper; 8 vo.; pp. 340. Price, \$1.50 per copy; \$2.50 per year. G. P. Putnam's Sons, New York.

This semi-annual publication is too well known, and has been too long established, to demand any special praise at the hands of the reviewer. It is simply an epitome embracing every discovery and practical improvement in medical science during the six months prior to each issue, and consequently is invaluable, especially to the busy practitioner. As a work of reference it is unsurpassed; moreover it is one of the few journals that constantly maintain a high literary standard.

Therapeutic Brevities.

Vaginal Injections of Hot Water.—There is no therapeutic measure so frequently misapplied or abused, or so imperfectly understood. Employed after the usual method it is capable of doing infinite harm. The following should be observed:

Use a large size fountain syringe, or douche-can, attached to a support elevated three or four feet above the body:

The patient should always lie flat on her back with the hips slightly elevated and shoulders depressed:

At least three gallons of plain water at a temperature of 107° to 120° Fahr should be employed each time, and at least twice daily (morning and evening), except on the two days preceding and immediately following the menstrual period:

Rest should be had from thirty to sixty minutes in a recumbent posture after each injection.

Hot vaginal irrigations, especially if profuse, should never be employed by healthy pregnant women since they tend to reduce the bactericidal power of the vaginal secretion.—BURTENSHAW (*New York Medical Journal*.)

Atropine in Ocular Maladies.—The drug should not be employed in anterior or posterior synechi with a tendency to glaucoma; as a rule it is harmful in superficial inflammations and where there is increased ocular tension.

It is useful in inflammations of the eyeball, and should be employed early in iritis. In corneal lacerations it is invaluable, as the iris is nearly always irritated. Also is of value in phlyctenular and parenchymatous keratitis.—*Il Policlinico*.

Aconite.—This is among the oldest of the remedies and has firmly established itself. The gradual substitution by this generation of coal-tar products for aconite, though attended by immediately flattering results, has been, upon the whole, a disappointment. The action of the two is entirely dissimilar, though apparently they seem identical. Both reduce temperature, it is true, but if that is to be the objective point of treatment, then cold baths are superior to either. Their dissimilarity lies in this: Aconite begins its work from the periphery, the

coal-tars from the very centres. Aconite reduces temperature by and through its secondary action on the circulation, slowing and soothing it, first relieving high arterial tension and thus the too rapid tissue metamorphosis incident to high fever and the resulting arterial excitement. The coal-tar products do not aid elimination, at the same time they depress and lower temperature.—BLESH.

Phthisis, New Treatment of.—Inject through the mouth into the trachea, daily, by means of a long curved syringe of the capacity of 60 minims, three drachms of the following: Eucalyptus oil, cinnamon oil, oil of thyme, of each 60 minims; iodoform, 20 grains; bromoform, 10 drops; olive oil (sterilized), 28 drachms. The patient feels the solution trickling into his lungs, experiences an agreeable sensation of warmth, and does not cough.

This operation may be performed at the outset with the aid of a laryngeal mirror, but the expert will soon be able to dispense therewith. The patient should hold his own tongue outside the mouth between the thumb and finger by means of a napkin.

This treatment is simple and inoffensive, and the effects vary with the stage of the disease: In the first stage cough and expectoration are generally relieved, even stopped altogether, after two or three weeks' treatment; strength, sleep and appetite also return. In the two remaining stages the results are not so satisfactory, but still considerable benefit may be obtained,—expectoration being less abundant and rendered easier, while strength and appetite improve.—MENDEL (*Medical Press and Circular*.)

Static Electricity in General Practice.—Its greatest activity is manifested upon those functions which have to do with metabolism—the modification of nutritive processes: Because of this action it is the greatest stimulant and tonic known. It has achieved especially brilliant results in the diseases which are usually classified as chronic.—No other therapeutic agent can compare with it in the treatment of nervous affections.

In all varieties of gout, rheumatism and arthritis its efficiency has been found unequalled.

In gynaecology it has outdone Galvanism and Faradism; especially is this the case in dysmenorrhœas, amenorrhœas, pelvic adhesions, and chronic inflammatory conditions;

at the menopause no remedy elicits more frequent expressions of satisfaction or gives more speedy and permanent relief.

It is the remedy *par excellence* in epilepsy, chorea, hysteria, and other mental disturbances. Nurasthenia or nervous exhaustion, a condition which, because of its great variety of symptoms, is a puzzle to physicians, will be improved immediately. No one remedy has earned so much praise in the relief of neuralgic pains, sciatica and lumbago; its control over the muscular and nervous system is supreme.

Even such profound diseases as diabetes, Bright's disease, and paralysis agitans, may be decidedly benefited, and in many cases entirely cured by its application. In locomotor ataxia, sometimes one single treatment will relieve the "lightning pains" and "crises."

Most surprising results have been obtained in paralyses and atrophies; whole areas and groups of muscles have once more been restored to complete power.

Many skin diseases, including those of the scalp, yield to static treatment: It allays pain in any part of the body and as a remedy for insomnia it is unrivaled.

Because of its well known power to improve the richness and purity of the blood, it is of undoubted value in anaemia, chlorosis, and all diseases due to impaired nutrition.

From the foregoing it will be seen that there are but few diseases or conditions in which static electricity can not be used with great benefit. Although it is not my intention to leave the impression that this agent is a "cure-all," yet many patients (who have tried everything without relief) should have the benefit thereof.—GRUBBE (*The Alkaloidal Clinic.*)

Lithiasis in Boys.—In Hungary children suffer not infrequently from stone, and I have seen ten cases, varying in age from two and a half to twelve years. I advocate supra-pubic cystotomy, as it is an operation that requires no special skill, is very easy, and in children even safer (though the time in bed is somewhat longer) than litholapaxy. The bladder heals very readily in young subjects, and should be at once sutured completely with silk, no drainage being needed. The only special difficulty is the great reflex excitability, which sometimes prevents the bladder being properly

distended. Stones are sometimes impacted in the urethra, whence the simplest mode of dislodgment is a prolonged warm bath, which is often alone effective. In one case a peri-urethral abscess formed, which, when cut down upon, was found to contain the stone; in another the concretion was removed by urethrotomy; in a third it was extracted from the cavernous urethra by supra-pubic cystotomy. In the two latter cases retention and dribbling had persisted for some days, and the bladder reached nearly to the umbilicus.—SCHWEIGER (*Weiner Medicinische Wochenschrift.*)

Fœtid Diarrhoea.—In fœtid diarrhoea of all kinds, especially when accompanied by tormina and tenesmus, *pure* beechwood creosote is the true remedy. The watery solution is the most convenient to administer. Put twenty drops in an eight-ounce bottle, fill up with water, and shake well each time before taking. The dose is one to two ounces every hour or two. In this way from forty to fifty drops may be administered in a day in severe cases, with excellent results; I have frequently seen the very bad odor of the stools, urine, body, etc., all pass away under creosote. I believe this medicament to be one of the best in catarrh of the stomach and small intestines; in the diarrhoea of infants it is also very valuable.—JOSEPH ADOLPHUS.

Birch Agaric in Gastro-Intestinal Disturbances.—The belief is current in Russia that *Polyporus betulinus* will cure cancer. Though the growth continues its course, great relief is experienced, even in a couple of days, after imbibing the strong decoction; pain subsides, food can be retained, and inflammation is abated. Smirnow finds the drug highly efficacious in chronic gastro-intestinal troubles accompanying malignant and other inflammatory conditions of the stomach and intestines.—*Glasgow Medical Journal.*

Tetanus.—If possible induce violent perspiration by raising the bed clothes over hoops and placing beneath several deep vessels filled with quick-lime slightly moistened and protected from contact with the body-surface. Pilocarpine or jaborandi, in full doses, may prove a valuable adjunct.—*Exchange.*

Acetanilid in Typhoid.—Every time the temperature is forcibly reduced in typhoid fever, it is at the expense of the vital force; for against each forceful antipyresis there is a subsequent reaction, vigorous or feeble according to the strength of the patient. Again, if coal-tar products are frequently resorted to in low forms of fever (especially typhoid), enfeebled action of the heart, congestion of abdominal viscera, and venous haemorrhages often result.

Acetanilid is valuable only in ephemeral fevers, and here a single dose often induces convalescence.—SIMMONS (*Medical Gleaner*.)

Oxygen in Diabetes.—To a man sixty years of age I gave great quantities of oxygen daily for a little over three months. During this period the quantity of urine diminished, its specific gravity decreased, sugar was reduced to a small proportion and in two months entirely disappeared. Three months later the sugar had not reappeared, although the patient had gone back to a diet of starchy foods; he also gained materially in weight.—ASCOLI (*Il Polyclinico*.)

Neurasthenia.—The principal diagnostic symptoms are: Exhaustion without complete loss of power: Intense self-consciousness and a habit of intropception: Cognizance of the perverted function of every organ: Subjective sensory disturbances,—mental depression, irritability, and insomnia are often present: Pain and tenderness in the back: Hyperesthesia, paraesthesia, and muscular disturbances are common.—*Medical Times*.

Baryta Iodide.—Many times tubercular meningitis was relieved by this remedy. Two cases of well defined tubercular meningitis were not only relieved, but cured. Where there are engorged lymphatics, with enlarged spleen quite hard and sensitive to the touch, baryta iodide is a good remedy. Possibly it may be found of value in obscure diseases of the pancreas.—FAHNESTOCK (*Homœopathic News*.)

Asafœtida.—The tincture, combined with milk of magnesia, furnishes the best remedy for colic due to intestinal acidity. As a diffusible stimulant in catarrhal pneumonia and capillary bronchitis, it is exceedingly valuable.—*Pediatrics*.

Abscesses.—In small suppurations occurring in infected wounds, no matter whether the whole or only a portion is involved, there is no better measure than removing of stitches, washing with hydrogen di-oxide, and thoroughly painting the pyogenic surfaces with tincture of iodine.—*International Journal of Surgery*.

Bronchitis.—Given a case of capillary bronchitis or broncho-pneumonia, where the expectoration is thick and profuse, temperature persistent at one to two degrees above normal, accompanied by exhaustion, and fifteen drops of echinacea every two hours will prove useful and even curative.—NEDERKORN.

Viburnum Opulus.—This drug is invaluable in congestive and neuralgic dysmenorrhœas, and often gives relief in the membranous and obstructive varieties; but unfortunately its action is more palliative than remedial, and the condition is apt to recur after a few weeks or months.—*Medical Era*.

Stramonium versus Opium.—Use stramonium always when an opiate seems to be indicated for the relief of minor pains and aches, delirium, etc., etc. Add five to ten drops of the fluid extract to four ounces of water, and give a teaspoonful every half-hour or hour.—BLOYER.

Diphtheria, Management of.—WICKERS recommends a saturated solution of sodium hyposulphite, mixed with an equal bulk of glycerin, applied once or twice daily, as an adjuvant to general treatment.—*Centralblatt für Innere Medicin*.

Tonsillitis.—I have found that one-half drop of croton oil, applied daily to the affected tonsil with a probe, will permanently cure suppurative tonsillitis. I proved it in my own case, among others.—COBBE (*Medical Brief*.)

Pediculi.—Oil of sassafras will destroy not only the vermin, but also their ova.—*Cincinnati Lancet-Clinic*.

Stimulant for Children.—Try brucine; its action is similar, but milder than strychnine.—*Wisconsin Medical Recorder*.

Corrigent of Chloroform.—

Morphine muriate	20 grains
Atropine sulphate	2 grains
Chloral hydrate	35 grains
Distilled water	2100 grains

From fifteen to twenty minimis to be administered subcutaneously before beginning the anaesthetic.

Fräenkel declares he has used this solution in thousands of gynaecological and obstetrical operations without a single untoward result so far as the anaesthetic is concerned; on the contrary many unpleasant effects which usually obtain to chloroform are thereby obviated.—*Tagesfragen der Operativen Gynäkologie.*

Painless Tooth Extraction.—

Cocaine muriate	2 to 4 grains
Morphine muriate	½ grain
Sodium muriate	4 grains
Antipyrin	15 to 30 grains
Liquid guaiacol	2 minimis
Distilled water	3 ounces

Make several punctures into the tissues about the tooth and inject in each a few drops of the solution until the gum appears bloodless; the tooth may then be extracted without pain.

The morphine and antipyrin are added in order to prevent the late appearance of pain after the cocaine has ceased to act.—*La Semaine Médicale.*

To Abort a Coryza.—

Carbolic acid	75 grains
Ammonia water	75 minimis
Alcohol	150 minimis
Distilled water	225 minimis

Ten drops to be poured on blotting paper, and the vapor inhaled, for a few seconds, every two hours.

An excellent abortive snuff is:

Cocaine hydrochlorate	14 grains
Menthol	5 grains
Salol	150 grains
Boracic acid	450 grains

A large pinch to be used every hour.

—LERMOYEZ (*Thérapeutique des Fosses Nasales.*)

Anti-Neuralgic Liniment.—

Chloroform	10 drachms
Tincture opium	8 drachms
Salicylic acid	8 drachms
Alcohol	7 ounces
Olive oil	14 ounces

Rub on the seat of pain.

—*The Practitioner* (London.)

Medical Progress.**Possible Contagiousness of Diabetes.—**

The most interesting points brought out in the recent investigations of diabetes, concern the occurrence of the disease in families. It is easy to suggest heredity and dismiss the facts from mind, but it may be recalled that every one of the chronic contagious diseases has, at some time in its history, been considered hereditary. Now, there are few who pretend to believe in direct heredity of any acquired characteristic, pathological or physiological.

The question of the origin of family diabetes is still further involved by the occurrence of marital diabetes. The number of cases which have been reported in which both husband and wife, although of different stock, have suffered therefrom, is entirely too great to be due to coincidence. As a rule, (as with tuberculosis) the communication is from husband to wife; the man suffers first, and the lowered resistive vitality incident to home-keeping and worry, makes of his spouse a victim.

Conjugal diabetes was at first explained on the score of conjugal syphilis; but syphilis like heredity, is an easy word to crowd into a discussion on aetiology, and it is a simple matter to have recourse to it as an explanation of obscure causation in disease; but this adds absolutely nothing to our knowledge. In a number of recorded cases of conjugal diabetes, there was absolutely no sign or clinical history of syphilis, and no postmortem evidence of its existence.

Recent clinical observations point more and more to the conclusion that diabetes may, in some cases, be of infectious origin. Transient glycosuria occurs in many of the infectious diseases:—It has been noted, in slight amount at least, in more than half the cases of whooping cough; after pneumonia to the amount of twelve per cent., and sugar in the urine has been detected three months after convalescence; like albumen, glycosuria would seem to accompany many severe infections. The acute diabetes of young children bears all the stigmata of an acute infection.

Despite all the study that has been devoted to the pathology of the subject, there remains a certain number of cases

in which no basis of organic change can be found to account for the disease. There is, undoubtedly, a pancreatic diabetes, and perhaps, also, a hepatic form; beyond these lie the nervous and so-called hereditary cases for which some explanation is required.

It has been suggested that the disease is due to the presence of a ferment in the circulation which converts the normally latent sugar of the liver and blood into glucose; in this form it cannot be used within the body, but is excreted as a waste product, and what is its precise nature is not known. Supposing its existence, it is easy to see why diabetes attacks husband and wife, and often carries off several members of the same family. The possibility of its conveyance by infection is sufficient to cause physicians to warn those in intimate contact with diabetic patients of the necessity for careful precautions and special cleanliness as regards food and drink. Of course, this will seem to many as wholly unwarranted, who will scoff at the idea and prate of the cruelty of making life harder for the unfortunate by giving publicity thereto: And yet, it must not be forgotten that a quarter of a century since the same arguments were employed as to the transmission of tuberculosis.—*Medical News.*

Malignant Tumors of the Lungs.—

These may be sarcoma, endothelioma, or carcinoma; the two former are very rare and generally metastatic. Primary carcinoma arises from the bronchial mucous membrane, and diagnosis during life is seldom made. Weinberger reports three cases of primary bronchial carcinoma, one of which ran a course almost typical of tuberculosis, with symptoms of a bronchial tumor later; the other expectorated pieces of tumor which were diagnosed microscopically; the third was a case of sarcoma of the mediastinum, which had grown into the lung. Roëntgen photographs were made of all three cases, showing malignant tumors of the lungs, proved by autopsy. In the first case, the man had been ill about a year, and typical signs of beginning phthisis appeared in the right apex, followed later by a distinct difference (under the Roëntgen ray), between the movements of both sides of the diaphragm, the right side moving far less than the left. The large shadow of the tumor was upon the right side. Autopsy showed car-

cinoma of the upper lobe of the right lung, starting from a bronchial twig, embracing the right bronchus, trachea, left bronchus, oesophagus, superior vena cava, pleura, second and third ribs, and the bronchial glands. The second, under the Roëntgen ray, showed a right-sided tumor of the pleura or lung. At the autopsy carcinoma of the right bronchus with numerous metastases was found. The third case was a girl of 20, in whom a mediastinal lymphosarcoma had grown into the upper lobe of the left lung. Roëntgen photographs will aid materially in the differential diagnosis of thoracic tumors. Adhesion of the pleural surfaces, effusion into the pleural sac, atheroma of the aorta, and the consistency of a tumor may thus, sometimes, be diagnosed.—*Zeitschrift Fuer Heilkunde.*

Prescribing for Children.—

From prescribing drugs which they seldom see, practitioners are apt to overlook the nauseousness or the unsuitable bulk and consistence of the materials they employ. This is of importance. Certain flavors which are very unpalatable may be easily disguised, as scammony and castor oil with milk; senna with chloric ether; decoction of aloes with liquorice. Of certain drugs the saccharine preparation should be selected; to others sugar, or the infusion of roses or cloves, may be added. Bulky powders should be avoided, and the dose of fluids should not exceed one or two drachms. There is a legitimate distinction to be drawn between the medication of children and the medication of adults. To the child the process can hardly fail to be grievous, and it never affects his imagination except unfavorably. With the adult the taking of medicine always excites a pleasing hope, and no one can doubt that, in some instances, the mere faith in the remedy is of itself salutary.—*Clinical Medicine* (London.)

Significance of Girlhood.—

The girl as the product of modern civilization is, in everything but bodily vigor, removed by all that is desirable from her aboriginal mother. It is the just aim of our educational system to develop still further her intellectual advantages, but it is also due to her (and to the vital interests she represents) that we restore (as far as is possible to modern society) the physical advantages

of which our multiplication of artificial standards have deprived her. Her muscular activities are curtailed by the adoption of the corset and a more mature and burdensome form of dress; her social instincts are aroused by too early participation in exciting amusements; and when employed as a wage-earner, the conditions of occupation are even less favorable. In a very large percentage of girls there is greater or less impairment of the menstrual function. Some results accruing to improper hygiene at the developmental period of puberty are, menstrual pain and nervous exacerbations, chronic congestion, inflammations of tubes and ovaries, invalidism, difficult labor, trauma in childbirth, sterility.

It is much easier to prevent such evils than to remedy their effects. Outdoor life should be as rigidly insisted upon for girls as well as for boys; the dress should be as free and unconfined as that of the opposite sex—but need not, necessarily be duplicated. Forced mental development at the expense of the physical should be discouraged. Where the local mischief has already been done, the indications are to relieve pain and restore as far as possible the normal relations of the pelvic organs.—NEWMAN (*Medical News.*)

The Liver and Poisons.—

Three series of experiments, seventy-two in all, were performed. In the first emulsions of liver, of spleen, of kidney and of brain were, injected along with toxic doses of strychnine, into animals; these experiments showed, distinctly, the power of these emulsions to lessen the effect of the poison—the longer the emulsion and poison were allowed to mix before injection the less was the toxic effect. More experiments plainly evidenced that the richer the emulsion in cells of the organ, the more active the resistance of the economy as a whole. Blood had the same effect, but the activity of blood-serum was *nil*.

In the second series a solution of strychnine was passed through the liver of an animal before being injected into a second animal; here also the poison had far less effect than normally.

In the third series, an extremity was ligated, strychnine injected, and the ligature only removed four hours later; in spite of the toxic dose employed not one of the animals showed bad results.

From the foregoing it is a reasonable conclusion that the power of decreasing the activity of a poison lies in the cells of the animal organs; and that all tissue has some such power. The liver undoubtedly possesses this to a very large degree.—VON CZYHLARZ and DONATH (*Zeitschrift Fuer Heilekunde.*)

Mother's Milk, Fallacies of Analysis.—

The analysis of breast milk to determine the cause of cases of indigestion in nursing infants is unsatisfactory; the true test is the effect upon the child. If there is persistent indigestion with no gain in weight the case is hopeless and nursing should be stopped. If there is gain in weight, efforts should be made to overcome the indigestion. Change in diet is often of the utmost importance; and less milk, with higher percentages, and plain water between meals, often give good results. Too much attention should not be paid to traditional opinions regarding the amount of fat and proteids in formulæ. The comfort of the child should be the real guide in any system of infant-feeding. —*Medical News.*

Mountain Fever.—

As compared with enteric fever, this malady is considerable shorter in duration and the exacerbations and remissions of temperature more abrupt. The eruption has a peculiar "spotty feeling,"—it is raised, does not disappear upon pressure, and covers the entire body. In the majority of cases the Widal test is negative.—R. HARVEY REED (*Journal American Medical Association.*)

New Type of Scarlatina.—

While compulsory notification, accompanied by hospital treatment, has lowered the mortality of scarlet fever, it has undoubtedly altered the type of the disease; so much so that, now it is often difficult to tell when one has, or has not, to deal with the suspected disorder. On every side one hears repeated that epidemics are latterly characterized by a want of symptoms and signs: The bright red rash is seldom seen, and when present it often disappears before the arrival of the medical attendant: If one looks for throat signs they, too, may have been transitory: The symptoms of onslaught are so slight that even an anxious parent takes no notice of a passing day's indisposi-

tion.—In fact, the only points that guide one are, the existence of cases in the same school or neighborhood, with perhaps slight pain and stiffness due to an enlargement of the glands about the neck.

It is these mild cases that kindle into flame the big epidemics that are only too prevalent in the larger towns. In Paisley, in 1900, the cases of scarlet fever were of mild character and seemed to be a hybrid between scarlet fever and epidemic roseola; desquamation was indisputable, however. The infection was probably propagated through the summer playgrounds. The erection of high tenements in large towns only encourages the spread of such diseases.—ROBERTSON (*The Lancet*, London.)

Extraordinary Fibroid Growth.—

A uterus removed by hysterectomy contained one hundred and twenty fibroids; four sessile tumors projected into the cavity of the organ and these had become so moulded to each other as to form facets on their contact-surfaces, such as are found in multiple gall-stones.

After hardening the organ in methylated spirit, sections were made from which a careful computation showed the uterus, which scarcely exceeded the dimensions of ones' fist, to contain one hundred and twenty fibroids. In all that were examined the tumor-cells were found disposed around the blood-vessels. Each minute fibroid was globular, and one section quite white, so that the contrast in color with the red of the uterine muscle-fibre made them conspicuous objects on the cut-surface. Each fibroid was sharply differentiated from the uterine tissue by a thin capsule, from which it could be readily enucleated. BRAND-SUTTON (*British Medical Journal*.)

Bicycle and Malignant Testicular Disease.—

Of sixteen cases of primary sarcoma of the testes reported by Doctor Coley, three were unmistakably the result of devotion to the bicycle. There is no doubt that acute trauma either serves to arouse dormant connective-tissue cells, or else so lowers the resistive vitality as to permit the irritant which causes the tumor to secure a favorable opportunity for lodgment. With regard to the idea advanced by Doctor Coley that some of the teratomata develop as secondary growths to some malignant

tumor within the abdomen, it is more likely the testicular tumors are primary. Teratomata develop in the young and healthy, who have previously had no abdominal symptoms, and they come as the result of direct injury to the testes.—*Medical News*.

Toxæmia.—

This is a complex condition depending upon more than one factor. Many women complete their pregnancy without albuminuria or any symptoms referable to toxæmia: When such symptoms do arise they are not due to the presence of albumen but to faulty secretion of urea. In the most desperate and malignant cases neither albumen or casts are found; but urea is always markedly diminished in the "true" toxæmia of pregnancy. A regular and methodical examination for the presence of urea should be made in each case, rather than the time-honored tests for albumen, which latter is of only secondary value. Progressive diminution of urea excretion, with or without albuminuria, is the sole indication for induction of premature labor, which is especially indicated when conscientious medical treatment fails.—MARX (*Medical Record*.)

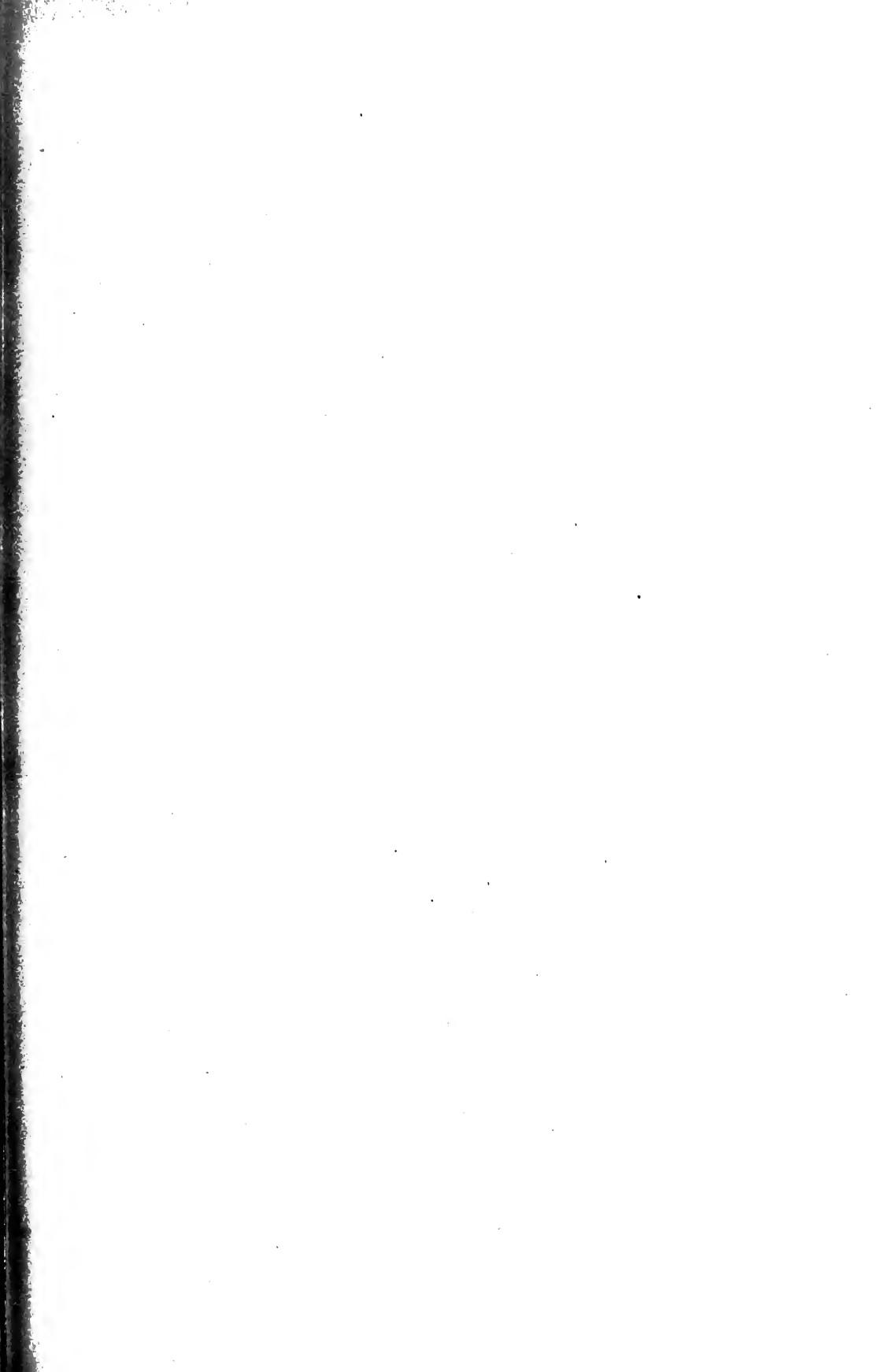
Fracture at Elbow-Joint.—

When swelling is marked, there is often great difficulty in securing a correct diagnosis. In such case, anaesthetize the patient and apply a rubber bandage from the fingers to the shoulder. After twenty minutes the swelling will have disappeared, when the joint may be critically examined.—DAWBARN.

Pathology of Rheumatism.—

Poynton describes a micrococcus found in rheumatic fever, to which he ascribes the disease. He believes the bacteria lodge in or near the joints and when destroyed produce the fluting joint symptoms.—*The Practitioner* (London.)

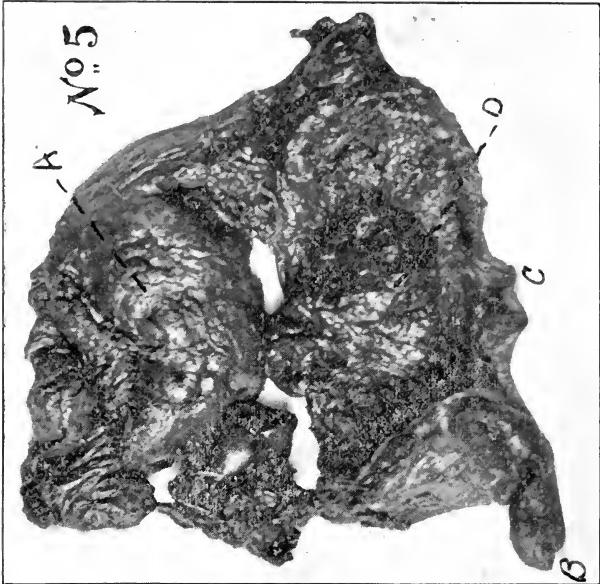
Dieting in Dyspepsia.—There must never be less than five hours between each meal: No solid food should be taken between meals. Those with weak hearts should have their principal meal in the middle of the day; and should take it as dry as possible.—BALFOUR.



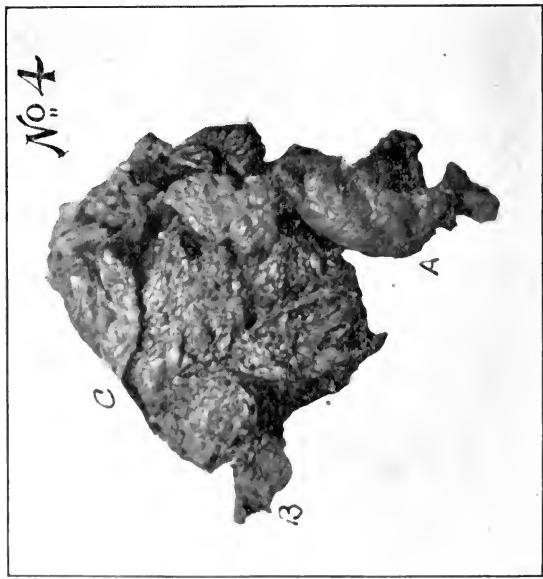
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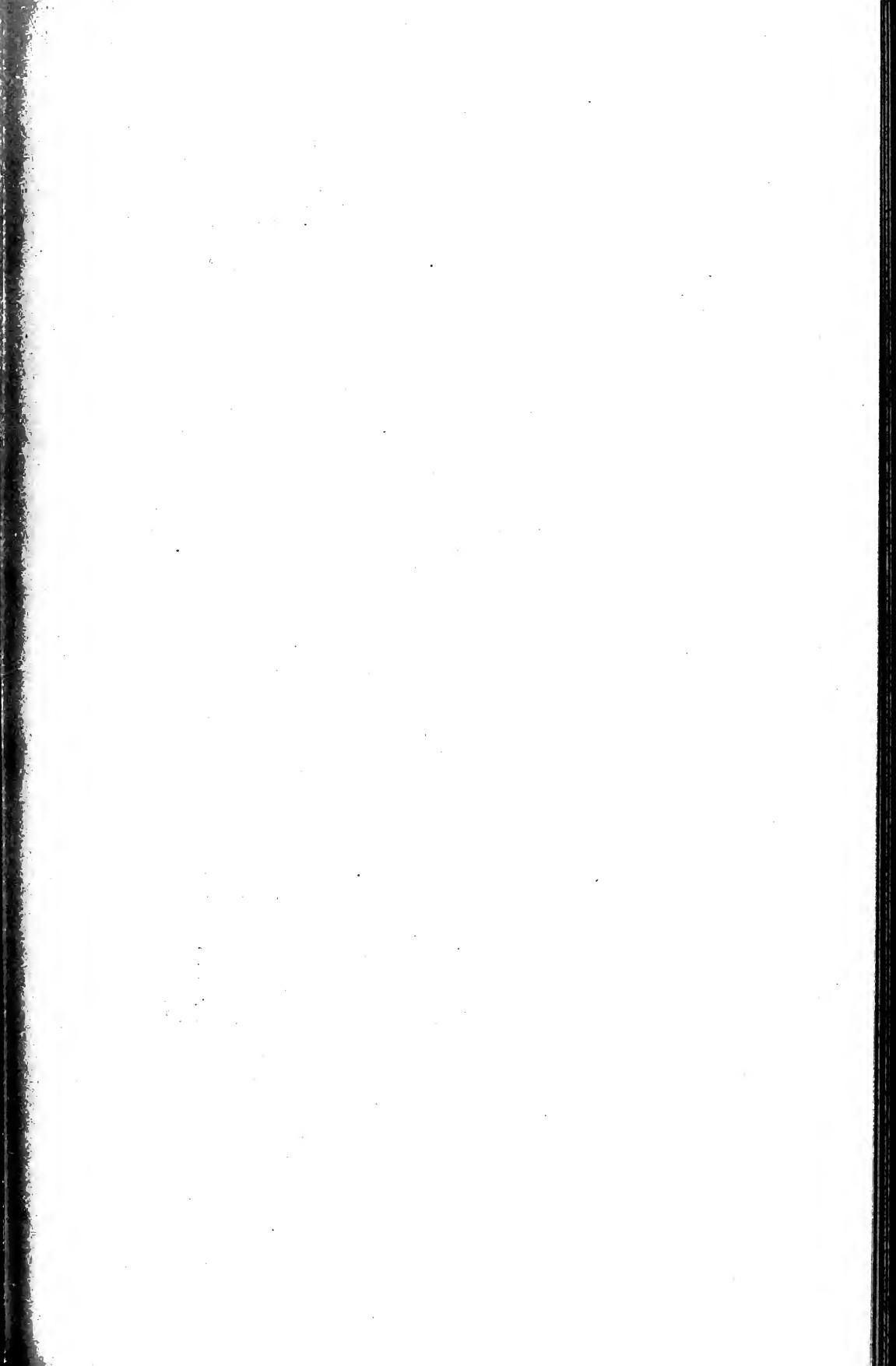
Seven Weeks Foetus, and most of placental
tissue removed from ruptured interstitial preg-
nancy.

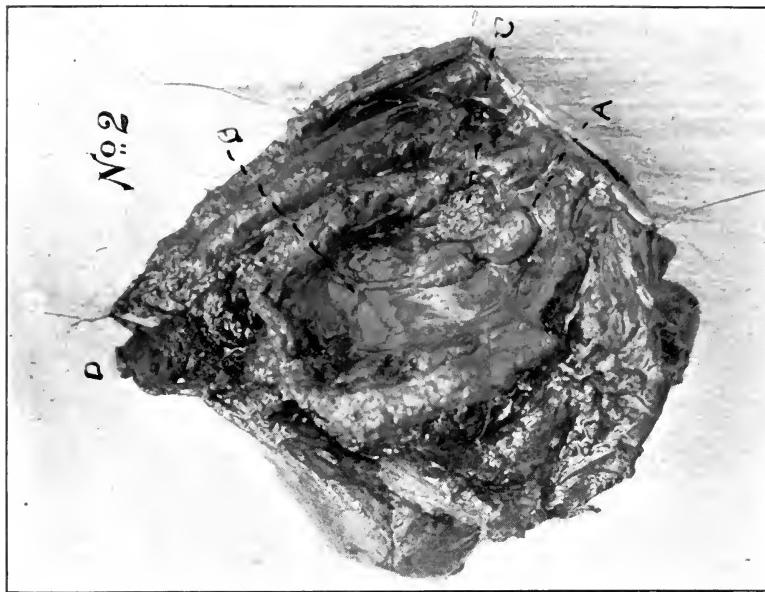


Ruptured Tubal Pregnancy—Foetus not found.—A.
Ovary; B. Uterine end of Fallopian tube; C. Gestation-
sac laid open; D. Membrane found in sac.

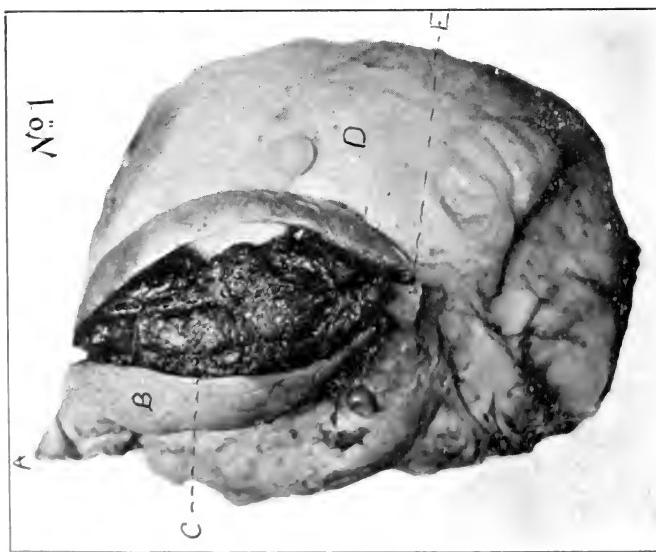


Ruptured Tubal Pregnancy—A. Foetus, face to left,
body twisted to right; B. Uterine end of Fallopian Tube;
C. Gestation-sac laid open.





Unruptured Tubal Pregnancy of Seventh Week: Thickened wall of tube laid open opposite insertion of umbilical cord.—A. Foetus; B. Insertion of cord; C. Small blood-clot—D. Uterine end of Fallopian tube.



Unruptured Tubal Pregnancy With Small Ovarian Cystoma—Foetus not found: A. Uterine end of Fallopian tube; B. Gestation-sac laid open; C. Placental tissue and blood-clot within the sac; D. Ovarian cystoma; E. Fimbriated extremity of tube adherent to cyst-wall, and from which blood escaped into abdomen before operation.



DETROIT MEDICAL JOURNAL

Original Articles.

*ECTOPIC PREGNANCY.

BY H. W. LONGYEAR, M. D.

The relative frequency of the occurrence of ectopic pregnancy is evidently much greater than was imagined by the older observers. Pozzi said in 1886:

The condition is somewhat rare. Out of sixty thousand women examined in the course of seven years in the clinics of Carl Braun and Spaeth, of Vienna, there were but five cases of extra-uterine pregnancy.

This proportion would seem to be too low, for Fasola (1883 to 1885) observed an equal number in only one thousand five hundred and sixty-five pregnancies, in multipara who had remained for sometime sterile.

Greater skill in diagnosis and early resort to laparotomy in doubtful cases, have proved this condition to be much more frequent than was supposed a few years ago. The statistics of the older writers are doubtless of little value to us now, because of the fact that very few cases were then diagnosed in the early stages. The patients included in Pozzi's statistics, are, evidently, only those that came into Braun's and Spaeth's lying-in-wards for confinement, hence were the only ones that had gone to full term, which as we now know would represent but a very

small percentage of all the cases occurring in a given locality.

My recent personal experiences also tend to show that the accident is not very uncommon, as during the years 1896 and '97 I operated on seven, and diagnosed one other in consultation. During this period the statistics of the city of Detroit exhibited a total of about 8,800 births, which would make an average of the cases which came under my observation alone, about one in eleven hundred: Of course this does not take into account the (doubtless) considerable number of pregnancies which ended in abortion and hence were not recorded, but for statistical use the showing is probably as accurate and as useful as any that can be cited. And when it is considered that this number which came under personal observation and treatment during that time was probably only a fractional part of the grand total of the occurrences of this very dangerous accident, an approximate idea of its relative frequency can be imagined. Its frequency in large cities, by virtue of the great number of cases of diseased Fallopian tubes, is doubtless greater than in the country, where the ravages of the gonococcus, and other micro-organisms inimical to the health of the genital tract, are less in evidence.

Since my experience with this series of eight cases, which were reported in the *An-*

*Read before the Gynæcologic Section of the Michigan State Medical Society, May 15th, 1901.

nals of Gynaecology,¹ I have seen but three others, two of which were relieved by operation immediately after rupture, while one (the second) recovered spontaneously before rupture occurred.

Until recent achievements in abdominal surgery opened up this field, the pathology of ectopic pregnancy was very confused and but poorly comprehended. To Mr. Lawson Tait, is chiefly due the honor of straightening out the tangle and giving a clear and seemingly true statement of the conditions encountered. His classification is as follows:

"Scheme of Ectopic Gestation in tubo-ovarian tracts:—

"Ovarian.—Possible, but not proved:

"Tubal,—in free part of tube.—and is:—

(A.) Contained in tube, up to fourteenth week, at or before which time primary rupture occurs, and then the process of gestation is directed into:—

(B.) Abdominal or intra-peritoneal gestation, uniformly fatal unless relieved by abdominal section, primarily by haemorrhage, secondarily by suppuration of the ruptured sac and peritonitis:

(C.) Broad-ligament or extra-peritoneal gestation:

(D.) May develop in broad ligament to full time, and be removed at viable period as a living child:

(E.) May die and be absorbed as extra-peritoneal haematocele:

(F.) May die, and the suppurating ovum discharge at or near the umbilicus, or through the bladder, vagina, or intestinal tract:

(G.) May lie quiescent, as a lithopædion:

(H.) May become abdominal- or intra-peritoneal gestation by secondary rupture:

In tubo-uterine or interstitial gestation, the foetus is (A) contained in the part of the tube embraced by uterine tissue, and, as far as known, is uniformly fatal by intra-peritoneal rupture (as B) before the fifth month.²

Tait believed that spermatozoa never pass above the uterus, excepting in cases of disease of the Fallopian tubes where the normal action of the ciliated epithelium covering this mucous membrane is interfered with. He also believed that ectopic pregnancy always begins in the tube, and when found elsewhere its situation is the result of transplantation after rupture of the latter.

L. E. Frankenthal³ made extensive studies

of extra-uterine pregnancy occurring twice in the same patient, and is firmly of the opinion that, in the human female, impregnation occurs normally in the tubes for the following reasons:

Living spermatozoa have been found in the tubes:

The customary site of impregnation in mammals has been proved to be in the tube:

The ovum is impermeable after it has graduated the outer third of the tube:

The motion of the cilia in the tubes is toward the uterus:

That of the muscular fibres is toward the fimbria, and:

The motion of the uterine cilia is toward the tubes:

Impregnation occurring in the tube, any mechanical obstruction, or certain pathologic conditions, will prevent the advance of the ovum to the uterus.

Cases of supposed ovarian pregnancy are, in my opinion, usually the result of transplantation of the ovum during its slow expulsion from the tube through the fimbriated extremity. Expelled in this way the ovum may become attached to the omentum, intestines and other portions of the abdominal viscera, there develop, and at the time of abdominal section or post mortem, the tube shows no sign of the pregnancy having begun therein. The seventh case of tubal pregnancy, operated on by myself, might have terminated in that manner, as the five weeks ovum was found situated in the outer third of the tube, the infundibulum dilated to the diameter of about five millimetres, while a small blood clot, with the ovum close behind it, was presenting.

Some authentic cases of ovarian pregnancy have of late been reported: J. Oliver⁴ gives the details of a case in which the full-grown child was found in a sac with a well-defined pedicle, which sac was ligated after the manner employed in dealing with an ordinary ovarian cyst, and the sac containing foetus and placenta remained intact. The tumor, which was the right ovary, was found to be a closed sac, containing a full-grown foetus with its cord and placenta. No breach in the Fallopian tube of the same side could be detected, and the appendages on the opposite side were normal.

The point of rupture of the tube is usually, if not invariably, at the site of the implantation of the placenta, and is caused by weakening of the muscular walls through separation of the fibres by the villi of the chorion, which rapidly insinuate themselves between them. When rupture occurs upward, the ovum is expelled into the peritoneal cavity, and free, unrestrained, and immediately dangerous haemorrhage will result; but if the implantation of the placenta is in such a position as to direct the rupture downward, the rent may appear between the folds of the broad ligament, so that the contents of the tube, along with the hemorrhagic blood, will be forced into this confined space (the resistance of the walls of the ligament usually being sufficient to limit the bleeding), and cause the formation of a firm clot that results in a well-defined, extra-peritoneal, pelvic haematocele.—This is not, usually, immediately dangerous, save when secondary rupture through the walls of the broad ligament occurs, when it assumes the character of an upward rupture. This latter gives rise to the class of cases in which the foetus survives and develops to full time, though in a majority of instances it survives for less than the normal time of gestation. Following the death of the foetus, the amniotic fluid is absorbed causing a shrinkage of the tumor, after which the soft parts of the foetus may be absorbed, and a calcification of the remaining parts take place resulting in formation of a lithopædion; or suppuration within the sac may occur and point and discharge at or near the umbilicus, through the bladder, vagina, or intestine, the bones of the foetus escaping with the pus and other debris by a slow process of ulceration. The reason for the discharge of the foetal remains into these organs, rather than into the peritoneal cavity, is an interesting one, and explained by the anatomical position of the ovum after it passes out of the Fallopian tube. By passing within the folds of the broad ligament it becomes sub-peritoneal, and as development progresses it gradually

separates the peritoneum from the pelvic floor, abdominal walls, bladder, uterus and rectum, and these parts being thus unprotected, a solution of continuity of their tissues is readily accomplished by the presenting parts of the contents of the sac. If the walls of the sac (composed of the broad ligament) should give way to the rapid distension caused by the growth of the ovum, and discharge the foetus into the abdominal cavity, the sub-peritoneal pregnancy would be changed into a true abdominal pregnancy, and if the patient survives the resultant shock and haemorrhage, the foetus may develop to full term in that position.

Tait holds the tubo-uterine or interstitial form as the most dangerous, declaring such uniformly proves fatal by intra-peritoneal rupture before the fifth month.—A case of my own was of this variety, and fortunately saved by prompt section. Many cases of this kind doubtless occur, in which the ovum is situated so close to the uterine orifice of the tube that it is extruded into the uterus and thereby becomes a normal pregnancy, or probably more frequently is discharged as a normal abortion; yet Tait does not believe this possible, and says he has never seen a case in which this form of rupture could be demonstrated. Such a diagnosis must of necessity be theoretical, as the contraction of the uterus would doubtless prevent any dangerous symptoms.

Under some conditions a cornual pregnancy may result in the same disastrous manner as the tubal variety. H. Briggs⁵ reports a case of pelvic haematocele due to a rupture of a pregnancy in a rudimentary uterine horn, wherein operation was followed by cure: He remarks that a cornual pregnancy is liable to any of the diseases or accidents of the normal or ectopic pregnancy.

Given a well-developed uterine horn and pregnancy, a natural labor may result; the uterine horn may be styled in every respect a normal horn. Given an ill-developed uterine horn and a pregnancy within it, and the

obstetric dangers are increased. It is well known that pregnancy in a rudimentary horn has the same tendency to rupture as tubal pregnancy, though the rupture usually takes place at a later period of gestation in the former than in the latter.

The consideration of the diagnosis of ectopic pregnancy should be under two heads, viz.: *Before and After Rupture.*

The diagnosis before rupture is, commonly, very difficult, and as a matter of fact very rarely accomplished. Tait practically says it cannot be done, or that failure will result so often as to practically amount to the same thing. One of the obstacles in the way of early diagnosis is, in the large majority of cases, no evidences exist that induce the patient to consult the physician, the first symptom usually being that of primary rupture. The first point to be determined is, that the patient is pregnant, for if this can be done the question is simplified and concentrated on the point of differential diagnosis. But, even then, it is not always a simple matter, for as the very nature of the cases suspected usually pre-supposes a history of previous tubal disease, the discovery of an enlarged tube is not conclusive, as it may be a pyosalpinx, a hydrosalpinx or an inflammatory deposit in and around the tube, as the result of an old attack of pelvic inflammation. As most cases of suspected, non-ruptured, ectopic pregnancy are found on thorough examination to be normal, exploration of the uterine cavity is not justified, excepting in instances where there are urgent symptoms demanding it, and then it must be understood that the risk of abortion attends the same. In case of interstitial pregnancy, the differential diagnosis previous to rupture is almost an impossibility. In the case operated on by myself, the patient experienced no symptoms other than those common to normal pregnancy up to the time of rupture, and as she had several successive slight ruptures preceding the final collapse, opportunity was given, and she was examined by two competent general practitioners, neither of whom suspected anything more than a normal

pregnancy with threatened abortion: The apparently full uterus could be felt, as well as tubes and ovaries on either side in an apparently normal condition.

About the only way in which even an approximate diagnosis can be had, is by exclusion: Given the case of a woman at a fruitful age, with pelvic trouble of any kind, the first thing essential is, that the examiner should have in remembrance the possibility of ectopic pregnancy. How often has the diagnosis of some rare form of disease flashed upon the mind merely by hearing or reading of its name, and the case that has been a source of worry and that has puzzled beyond measure, is suddenly made clear as though by revelation! The physician who never anticipates an ectopic pregnancy until the nature of the symptoms are so unequivocal as to force the thought, can never expect to diagnose a case before rupture, and he will be fortunate if he recognizes the condition even after the symptoms of rupture have occurred. Theoretically, I believe Hegar's sign of normal pregnancy to be valuable in differentiating between a uterus that is filled by a soft fluctuating mass (such as is present in pregnancy) and one that is empty; besides the presence of fluctuation in the body of the uterus, the sign includes a characteristic softness, pliability and thinning of the lower segment of the organ,—that is to say of the part immediately above the insertion of the sacro-uterine ligaments. By depressing the uterus it is possible to distinguish the rigid surface of the upper portion from the lower, and the softness is so marked that one can imagine the cervix to be simply in contact with a pelvic or abdominal tumor. This group of symptoms was demonstrably absent in my cases, excepting the one of interstitial pregnancy where I was not able to make a satisfactory determination of the conditions. The sign becomes very marked at the third month, but is present, although in lesser degree, previous to that time. If a constant flow of blood be present, and especially if shreds of decidua are expelled, rendering the act jus-

tifiable, then the uterus should be examined. Given a purple color of the cervix and vagina with elevation of vaginal temperature at or above 99.7° , Fhr., in a woman otherwise healthy, whose uterus is empty, and who gives a history of unusual menstrual disorder—either complete amenorrhœa or menorrhagia,—with other usual symptoms of gravidity, the presence of ectopic pregnancy should be suspected; and if in addition to these indications a small tumor in one of the Fallopian tubes can be demonstrated, the diagnosis is fairly certain.⁶

Diagnosis during or after rupture should rarely offer any difficulties, providing, again, that the examiner has ectopic pregnancy in mind. If he has never seen, heard of, or read of a case of the kind, he surely will fail to make a diagnosis; but if his mind has ever dwelt on this peculiar accident, he should not fail to at least suspect the true nature of the trouble.—The symptoms of rupture are very marked, and so alarming as to induce the patient to hurriedly summon the physician. In considering the diagnosis of this stage it will be of value to glance again at a bit of the pathology, and for the purpose I quote from Tait:

A tubal pregnancy is bound to rupture; in the free part of the tube it rarely delays beyond the twelfth week and may be as early as the fourth; in the interstitial part of the tube from the third to the twentieth week. This rupture takes two directions:—Into the peritoneum which is the fatal form, and: Into the cavity of the broad ligament. The latter, or extra-peritoneal, alone gives all the cases which go on to the period of viability, all the lithopadia, all the suppurating cysts discharging into the bladder, rectum, vagina and abdomen; and also all cases which by secondary rupture of the broad ligament into the peritoneal cavity are called "Abdominal Pregnancies."

Also, I quote the following from Strahan:

We will first consider the symptoms and diagnosis of the more fatal form, that caused by intra-peritoneal bleeding. The injury sustained, as Barnes says, is compound: There is the traumatic violence attending the rent, and the sudden impression upon the sympathetic centers producing shock, and the haemorrhage. The symptoms are also two-fold: Shock causes collapse, shown by loss of bodily heat, loss of all strength and energy, almost imperceptible pulse, intense paleness, vomiting, and often in a very few hours, death. To this group of symp-

toms, Barnes applies the term "Abdominal Collapse," and the name is a good one. These symptoms ensuing on rupture are so characteristic that violence and poisoning are the only things with which it will be easy to confound them. The whole thing usually happens so suddenly—some slight exertion, such as stooping at work,—when a violent pain seizes the woman, she becomes cold, pulseless, collapsed, and is so often found dead or dying that suspicions of violence are often aroused. Sometimes, especially if the unruptured ovum sticks in the rent in the tube, the haemorrhage may not prove immediately dangerous. The woman recovers from the symptoms of shock, she may have no further attacks for a few days, when bleeding suddenly recurs with another attack of pain and fainting. This may be repeated several times before death occurs, but unless surgery steps into her relief, death is all but certain. Some cases are so violent in the first onset that there is hardly time to do an operation, but, as a rule death does not occur for several hours.⁸

The termination of the quotation would lead one to believe that fatality usually follows closely upon rupture, whereas, as a matter of fact, I believe that only a small percentage of the cases die so soon, death usually being a matter of days, and sometimes of weeks, through slow haemorrhage.

Peritonitis is not usually an accompaniment of the rupture and haemorrhage, even when the latter has existed for weeks and the abdomen filled with blood-clots of various ages. Tait is very clear on this point and quotes Parry at length, in support of his position. The latter says:

Peritonitis so rarely follows rupture of an extra-uterine, gravid cyst, that the possibility of its occurrence need not be taken into consideration in the decision of any question relating to prognosis or to treatment.¹¹

Two of my cases illustrated this point, as haemorrhage in both instances had progressed for several weeks, and though the abdomen was full of blood, yet no peritonitis developed.

If a woman of fruitful age is suddenly seized with severe pain in the lower part of the abdomen, attended by faintness, from which she does not readily recover as with ordinary faintness; with weak, rapid pulse; pale, anxious countenance with normal or sub-normal temperature; the previous history of the case and a physical examination are hardly necessary to complete the diagnosis. But, if in addition to these symp-

toms of shock and haemorrhage, a history of probable pregnancy, of discharge of decidua and irregular menstruation, can be obtained, and an enlargement of either Fallopian tube be demonstrated, the diagnosis, of course, is positive. These cases, sometimes, are diagnosed for several days or even weeks after the primary rupture, when in addition to the symptoms enumerated, there will be, usually, a slight rise of temperature, some tenderness of the abdomen with more or less distension and, by percussion, with the patient in different positions, free fluid may be demonstrated in the abdominal cavity. Haematocele in the posterior *cul de sac* cannot be detected in these cases of intra-peritoneal haemorrhage, as the fluid is free and not held any where, *en masse*, so as to form a tumor, as is the fact in cases of haemorrhage into the broad ligament.

The symptoms attending extra-peritoneal rupture of the tube—that is, when the ovum and blood are forced downward into the cavity of the broad ligament—are much the same as those manifested by an *intra-peritoneal* rupture, but are usually less marked or less severe—excepting in rare instances,—and the patient usually reacts from the shock within a few hours, and a distinct tumor, formed by blood collected within the walls of the broad ligament, can be felt on vaginal examination. If the ovum dies after a rupture of this kind, the fluid portion of the tumor is soon absorbed, leaving a hard rounded mass which, in time, usually becomes absorbed but, occasionally, gives rise to the formation of abscess, or occasions so much irritation as to demand removal. If the rupture is into the left ligament, while it is becoming distended with blood the action on the rectum (doubtless from pressure), occasions severe tenesmus: This is known as Tait's symptom of pelvic haematocele in left broad ligament.⁹ If the walls of the broad ligament prove too weak to bear the strain and pressure of the blood that is being pumped into the cavity, it gives way, and we then have the symptoms attend-

ing intra-peritoneal bleeding, which form of rupture it thus becomes.

In the early diagnosis of ectopic pregnancy I would warn the inexperienced against allowing their conclusions to be confused by the social conditions of the patient. If symptoms of rupture are present, with the characteristic signs of internal haemorrhage, speedy relief is demanded, and a diagnosis in accordance therewith, without discussion of cause will, in most instances, suffice to obtain consent to prompt operation.

The diagnosis of ectopic pregnancy after the foetus has survived the rupture and progressed in its development, is often very difficult; but the history of symptoms of rupture is a very valuable link in the chain of evidence in these cases, and when present should be of great assistance in arriving at a diagnosis. If the foetus is dead at the time of examination, there is often no way of making a positive diagnosis between ectopic pregnancy and any other tumor, as symptoms induced by the latter often simulate those of the former. When *ballottement* can be done, it constitutes a very valuable sign; it is affirmative shortly after the death of the foetus, but becomes negative within a very short space of time owing to absorption of the liquor amnii. If the foetus is living so that the heart-sounds can be heard, or its movements felt, and the uterus can be demonstrated to be empty, the diagnosis is, of course, comparatively simple. When the foetus lives until full term, and then dies, there is, commonly, a pretty reliable history of pregnancy, by which, with the aid of physical signs, the diagnosis may be quite confidently made. In cases where several years have elapsed after the death of the foetus, much difficulty may be experienced in arriving at a correct diagnosis, and it is in such cases that every effort should be made to obtain the minutest details of history and evidence: There will usually be a history of supposed normal pregnancy followed by symptoms of rupture more or less obscure; then spurious labor

obtaining for several days, soon after which the movements of the child (if they have been felt) ceased, and a diminution in the size of the tumor (absorption of liquor amnii) observed. Such a history coupled with the physical signs of a tumor apparently occupying the cavity of the broad ligament, should be sufficient basis for a diagnosis.

Before the year 1883 there was, practically, no systematic treatment for ectopic pregnancy, operations being recommended only in cases of advanced gestation; and the mortality was certainly 100 per cent. in the intra-peritoneal ruptures, and no one knows how high in the other variety. In 1883, Tait performed his first operation on a case of recent intra-peritoneal rupture, which was a dismal failure. The history of the initiation of correct surgical treatment of this malady, which had been so terrible fatal up to this time, is of such vital and absorbing interest that I give it in Mr. Tait's own words:

In the summer of 1881 I was asked by Mr. Hallwright to see with him in consultation a patient who had arrived by train from London in a condition of serious illness, that illness having been diagnosed by Mr. Hallwright as probably haemorrhage into the peritoneal cavity from a ruptured tubal pregnancy. The patient was blanched and collapsed, the uterus was fixed by a doughy mass in the pelvis, and there was clearly a considerable amount of effusion in the peritoneum, but no distinct tumor could be felt above, and I agreed with Mr. Hallwright as to the nature of the lesion. This gentleman made the bold suggestion that I should open the abdomen and remove the ruptured tube. The suggestion staggered me, and I am ashamed to have to say I did not receive it favorably. I saw the patient again in consultation with Mr. Hallwright and Doctor James Johnson, and again I declined to act upon Mr. Hallwright's request; and a further haemorrhage killed the patient. A post mortem examination revealed the perfect accuracy of the diagnosis.

I carefully examined the specimen which was removed, and found if I had tied the broad ligament, and removed the ruptured tube I would have completely arrested the haemorrhage; and I now believe had I done this the patient's life would have been saved.

After this terrible lesson, I did not see another example of ruptured tubal pregnancy, or one which I suspected to be of that nature, until called to Wolverhampton by Mr. Spackman, on January 17th, 1883. There could be no doubt as to the nature of the case, and of it Mr. Spackman was fully aware before I was summoned. The patient was already dying of haemorrhage, and I at once advised abdominal section. The foetus, about the twelfth week, was lying amongst

masses of clots and coils of intestine, and to these latter the partially extruded placenta had obtained new attachments. These I cautiously separated, causing fast and copious bleeding from every point. I wasted much time in trying to stop this haemorrhage, so that by the time the operation was finished my patient was practically dead; we got her to bed alive, and that is all that can be said. I thought much about this case for it was a bitter disappointment; where I believed a triumph would be scored, only a failure resulted. The conclusion was speedily arrived at, that I had blundered—that the true method of operating in such a case was to separate adhesions rapidly, regardless of bleeding, and make at once for the source of haemorrhage, the broad ligament, tie at its base, and then remove the ovum, debris, and clots at leisure. This I have now done in thirty-nine cases with but one death, and I think I may fairly say that I have really achieved a surgical triumph.¹⁰

Following on this pioneer work of Mr. Tait there are now large numbers of successful cases reported, all over the world, and the question as to abdominal section being the correct and only method of treatment is no longer a matter of discussion or doubt.

The operation for tubal ectopic pregnancy, at the time of (or soon after) rupture, if the condition is uncomplicated by other form of pelvic disease, is one of the simplest, and consists, briefly, in: Abdominal incision, immediate freeing of adhesions of the impregnated and ruptured tube with the fingers, without paying any attention to blood in the abdomen—excepting so far as removal of the latter is necessary to secure a clear field for manipulation,—tying off the broad-ligament attachments of the affected tube, and removing (usually with the ovary), thus instantly stopping all haemorrhage; then to remove only the blood and clots which are in the pelvis, and that require but a few moments to dispose of; finally, close the abdomen with or without drainage as the individual case demands.

The problem of removal of extravasated, intra-peritoneal blood, the clots of which will often be found inextricably entangled in the folds of the omentum and coils of intestines, is an important one, the solving of which I have accomplished, at least to my own satisfaction: Beyond what can be quick-

ly removed around the seat of operation, this exudate is best left within the abdomen, when the peritoneum will rapidly absorb it. Much precious time—which usually contains the valuable element of life to the patient,—may be lost in the manipulations necessary to completely empty the abdominal cavity of this exudate. If the douche is employed, the clots will mostly remain, and the unnatural douche-water only replaces the natural serum that is washed out, so that very little is gained in that way; and to remove the clots with fingers and sponges is a slow process which is liable to do much damage by the excessive manipulation required. In my first case I attempted to make a "clean job" of it by these methods, and I lost the only patient of the nine thus far operated upon; while in the other eight, the method which I advocate was followed by most satisfactory results. The teaching on this point, heretofore, has usually been to "make a clean toilet of the peritoneum," which, in regard to the removal of blood resulting from an operation, is no doubt "good surgery"; but is in my opinion constitutes the very *worst* when applied to ectopic pregnancy and an exsanguined and collapsed patient. In regard to this detail of *technique*, Tait is curiously silent, as in fact he is regarding operative *technique* generally. Keith advises washing out the clots with warm water.¹² Pozzi simply says:

Schwartz recommends in this condition that we remove the whole of the blood, not placing any dependence upon the absorptive power of the peritoneum but rather, in the cases of profuse haemorrhage, fearing the depressing influence upon the woman's system of the accumulated clots.¹³

The best time for operation is an important point and has been widely mooted and discussed, pro and con. The following queries, will serve to outline my personal opinions:

Is it best to operate at once if the patient is in collapse, or is it more wise to wait for reaction?

In a given case, can it be determined if it is one in which reaction will occur, or is it

one in which rapid haemorrhage will supervene and death occur ere reaction takes place?

Is it good surgery to wait for reaction before tying a bleeding vessel in the abdomen, when it would be considered very bad surgery to wait for such a reason before stopping a haemorrhage outside the abdomen?

If I had waited for reaction to occur, I believe my case of interstitial pregnancy would have been lost—the variety that, according to Tait, almost invariably die before assistance can intervene.

During the preparation for operation, the cases should be stimulated and supported by the use of strychnine, nitro-glycerin and digitalin, employed hypodermatically; and, before and during operation, normal saline solution to the extent of one or two pints should be injected into the cellular tissue of the chest and thighs, as well as a pint or so thrown into the rectum. Reaction, I believe, will usually come on rapidly enough after the bleeding vessels are tied and the terrible out-flow of the vital fluid stopped, and a careful application of the supporting methods mentioned will keep the flagging heart at work until the beneficial effect is manifested by the nervous system, and thus give the transfused fluid time to be absorbed and to distend the collapsed blood vessels.

When, after opening the abdomen, the pregnancy is found to be interstitial, the treatment must be quite different from the preceding, as the haemorrhage is from a rent in the fundus of the uterus, and not from one in the tube. If the accident supervenes upon a pregnancy of short duration—say under three months,—the treatment is comparatively simple, and consists of tying off the utero-ovarian arterial anastomosis on the side of the pregnancy, then scraping out the cavity with the finger or dull curette, and closing it by several deep sutures. The tubes and ovaries, if diseased, should be removed, but if not I see no reason for disturbing them; while it is true that the tube on the side of the trouble might be-

come patulous, and another accident of the same kind happen again, the possibility is so remote as to be hardly worth considering.

In cases of interstitial pregnancy that do not rupture until the fifth month—the extent of time given by Tait,—the gestation sac within the uterine tissue might be so extensive as to require hysterectomy, and I believe that haemorrhage from such a case would be so free as to prove fatal before operative interference could be instituted; but to wait for reaction before attempting rescue measures, would surely be fatal to the patient, as the bleeding from the lacerated uterine tissue (which is much more vascular under the same circumstances than are the tubal structures), would not be likely to become checked sufficiently to permit of reaction occurring.

In those cases where the rupture has occurred downwards into the cellular tissue of the broad ligament, and we have as evidence of such rupture a pelvic haematocele, immediate operation is not usually necessary, as the resistance of the cellular tissue and the walls of the broad ligament are such as to check the haemorrhage long enough for a firm clot to form which, with the placental tissue, forms a plug that closes the bleeding vessels. If the ovum dies after the haemorrhage, and the amount of clots and blood be not large, the mass is usually absorbed in time, and nothing serious results from the accident; and this favorable issue is probably the rule. If, however, the clots break down and suppuration supervenes, the case is quite another affair, and consequently demands prompt surgical interference. It is interesting to note the opinion Mr. Tait had of these cases in 1882, prior to the date of his first operation for ectopic pregnancy, and evidently before observation had entirely settled his ideas as to the correct pathology of this form of accident. On page 144, "Diseases of the Ovaries," he makes record of six cases of suppurating pelvic haematocele, on which he successfully operated by abdominal incision and drainage, and evi-

dently in none did he consider the liability of ruptured ectopic pregnancy being an aetiological factor, but treats them under the head of "pelvic suppuration." In 1889, however, he writes, referring to the same six cases:

Of these I select only one as a characteristic example, to illustrate alike their pathology and treatment; and the history of the case is eminently suggestive that it had its origin in a broad-ligament pregnancy.¹⁴

This brings up the mooted question of the aetiology of extra-peritoneal pelvic haematocele. Most writers still cling to the idea that a collection of blood in the broad ligament may result from other causes than ectopic gestation, but as these cases never, to my knowledge, have presented an opportunity to verify such diagnosis by necropsy, and as those that have been thoroughly examined at the time of operation have either proved to be either directly due to ectopic gestation or have remained in doubt, the preponderance of reliable evidence seems to be more and more in favor of ectopic gestation as the only aetiological factor aside from those of traumatic character. So strong is the belief in my own mind that, in any case serious enough to demand operative interference, I should consider the large extra-peritoneal collection of blood the result of ectopic pregnancy, just as I should if the blood were intra-peritoneal. The indications for operation are usually symptoms of suppuration, or constantly increasing size of tumor, with great pain; the latter is indicative of rapid haemorrhage and consequent danger of secondary rupture of the walls of the broad ligament. The tumor in such cases is most advantageously attacked from above by abdominal incision, as the haemorrhage can be best controlled from this direction. If haemorrhage has ceased the vaginal route is preferable. When the collection is very great and the peritoneum has been dissected away from the abdominal wall, in front, the sac may sometimes be entered without opening the peritoneal cavity. The sac in all cases should be emptied and drained. If the case be one in which the haemorrhage is still ac-

tive, the ovarian and utero-ovarian arteries should be ligated.

In cases of lithopædia within the ligament, the same operative treatment should be instituted.

In cases where the foetus has grown to full development in this position, the operation should, if possible, be made immediately at the close of false labor, when the life of the child may be saved. These should also be treated by the abdominal incision. After the abdomen is opened a careful inspection and palpation of the sac should be made before incising it, so as to avoid cutting through the placenta or in any way disturbing the same. After thus carefully deciding the best point of incision, and packing sterilized pads in the abdomen around the tumor, to protect the viscera from the flow of amniotic fluid and debris, an opening large enough to admit of extraction may be made, the child removed, and the cord tied and cut, allowing the placental end to bleed. The sac should be sponged perfectly dry; the cord, which has ceased to flow, cut short close to the placenta; a large Martin, self-retaining, rubber drainage tube passed through the thinnest part of the wall into vagina, by means of forceps thrust through from the vaginal side, after which the inside of the sac may be dusted with iodoform; the incision in the sac finally closed with a continuous suture of aseptic kangaroo-tendon or cat-gut, and the abdominal wound closed completely after removing the abdominal pads. The vagina should be loosely packed with iodoform gauze, which it is best to change about once in three days. The end of the tube should be surrounded with sublimated gauze, or absorbent cotton in large quantity, and carefully changed as often as necessary to keep the outside dressings dry. The placenta will begin to disintegrate in a few days, and be gradually discharged. Antiseptic solutions may be injected if necessary, and if symptoms of septic infection develop, the vaginal opening may be enlarged to provide free and ample drainage.

In all cases of this kind the placenta must not be disturbed, for if it is, the most uncontrollable haemorrhage will result. If the placenta be so situate as to preclude drainage through the vagina without injuring it, the opening in the sac should be sewed to the lower part of the abdominal wound and drainage maintained at that point. The vaginal method is, in the writer's opinion, preferable, as it has the benefit of gravitation and permits of complete closure of the abdominal incision, thus to a great extent obviating the danger of subsequent hernia. This method is advocated by A. Martin and the abdominal route by Mr. Tait.

Electricity has been used to kill the foetus, and I believe it may be successfully employed for this purpose; and if the cessation of life was the termination of the difficulty the agent would be a very valuable one; but, unfortunately, the placenta has been known to grow and rupture after the death of the foetus, and as the remains of such inert material often give rise to serious trouble, and also because the electrical current can only be used to any advantage before the rupture of the sac—and these cases are rarely diagnosed,—this treatment is possessed of no practical value to the scientific surgeon, and should be relegated to those who cannot themselves undertake abdominal surgery, and who practice in such out of the way places as to preclude obtaining the services of surgeons skilled in this kind of work.

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Correspondence.

EXTRACTS FROM THE JOURNAL OF A NAVAL MEDICAL OFFICER.

(Continued.)

Callâo, Peru, July 30th.—I have been to view the famous portraits of the viceroys, that are, by the way, most disgracefully kept in a lumber room, stacked up against the walls and covered thicker with dust than one could imagine possible; the two very obliging young assistants who took me in, had to sacrifice their handkerchiefs to wipe the faces of these defunct and gorgeous representatives of Spanish authority. All the portraits, or nearly all, are full length, and somewhat uniform in size and framing; the most interesting, that of Pizarro (which I saw first in the library and then mistakenly understood to be a recently acquired painting) is, like the other earlier ones, much faded and defaced, but capable of restoration by cleaning and varnishing. In a good light the face is most striking, and reveals a dignified, rather handsome old man, with large, open, straight-forward looking eyes, but a hard, thin lip and crafty, cruel mouth; I thought—perhaps this was fancy—I could detect the sinister characteristics of the individual as we know them, even trace his treacherous, cold-blooded character in the mouth; yet it was a face to command respect, and even some admiration, for the intelligence, and above all, the resolution of it. I hunted out the portraits of Vaca de Castro and of Gasca, the two next, for I confess I do not know whether there is or is not one of Blasco Núñez, who was defeated and killed by Gonzalo, a brother of Pizarro. Neither Castro or Gasca, as far as the portraits are concerned, presented anything significant: Castro, however, possessed a snub nose. All these portraits are clearly contemporary, and painted from life; and so far as I can judge are not possessed of any particular artistic merit, at least the earlier ones. All are in full dress—sumptuous would be the appropriate adjective—in the costumes of the seventeenth and eighteenth centuries, and all wore an amount of gold embroidery I would not have deemed possible.—A modern diplomat, even of the Russian or of an Eastern Court, is simply attired by comparison, while in the matter of uniforms, nothing modern can compare with them. The most striking countenances, striking, I presume, because of the romantic beards, are

those of the sixteenth and seventeenth centuries.

It is so constantly cloudy here, at sea, that it is very rare to see the coast line, even of the Andes, but yesterday I had a glimpse of the latter, and the result was grand, though the highest point in view was, probably, not over ten- or twelve-thousand feet. The most impressive sight, after all, is the view had thirty or forty miles at sea.

To-morrow I go up the Oroya road, (*Oroya* means simply a "rope ferry" or "bridge") which is a great railway leading into the heart of the Andes, though, as the Verrugas bridge has lately broken down, I cannot hope to get higher than San Bartolomé—a paltry five- or six-thousand feet,—with perhaps time to walk up to Verrugas.

This is by far the most wonderful railroad in the world and will, doubtless, soon be finished through to Cerro de Pasco, for the Peruvian government is negotiating to liquidate its debts by turning over all railways to an English corporation. I find the Verrugas bridge* is 5,889 feet above the sea-level, and Oroya, the present terminus, 12,257 feet, the latter is 218.6 kilometres from Callâo.—I forgot to mention there are two lines of railway here, one an English enterprise that terminates at Lima, the other the Oroya, an American line that is expected, ultimately, to connect with the line that will some day unite the railways of Ecuador and the Argentine Confederation; and the Ecuadorean lines are expected to be extended to the Isthmus of Darien, there to meet the Mexican lines when these are continued southward.

Callâo, August 2d.—I succeeded in reaching the Verrugas bridge, during the trip out the Oroya road. It is impossible to convey any idea of the grandeur of the mountain scenery encountered, not even with the aid

*The present bridge is of the cantilever type and replaces the one carried away as mentioned.—Four other bridges were swept away the same winter. It crosses the ravine with a single span, consequently there is no longer any danger of a recurrence of the accident. It is 575 feet long, and its centre 252 feet above the bottom of the valley which it spans. The suspended span is 105 feet long, supported on two iron towers. The new structure was designed by L. L. Buck, of New York, the iron furnished by Messrs. Cooper, Hewitt & Co., of Trenton, N. J., and erected by mechanics sent out from the United States for the purpose. It is of vast importance to Peru inasmuch as it materially aids in the development of the rich mining districts of Yauli and Cerro de Pasco.—Ed.

of photographs, everything was so stupendously ahead of anything I have ever seen—that is perhaps the best way to put it. This road was built as far as completed by Henry Meiggs, who came to South America under a cloud—fraudulent bankruptcy or something. He was a Californian, not much of an engineer professionally, but of great natural ability and pluck. He made his first reputation in Chili, and a lot of money on contracts of various sorts (railroad projects, etc.), and as far as I can hear, seems to have had all the qualities of a “bonanza” (self-made) man. Though coarse and common, and not burdened with much principle, he was, nevertheless, good-natured and generous in his way. He had several more or less worthless children, and as he lost a good part of his money prior to his death, some years ago, I believe there is not much left in the hands of his heirs. How far the scientific part of this railroad is his work I do not know; I believe, however, that his principal merit—and that a very high one,—was in believing it a practical scheme, and in selecting the proper men to carry out his ideas. The road as projected is from Callão, to Cerro de Pasco on the eastern range of the Cordilleras, and the distance would be something like two hundred and forty miles; it has not been running higher than Chickla, some 12,300 feet above the sea-level, but the principal part of the work has been done, and it seems likely now that the road will eventually be opened through, though, perhaps, not for some years—I believe there is but this one pass through the mountains anywhere near here; and it is really an enormous work. The valley ravines (*quebradas*) of the Andes differ from those of any mountains known; in the first place, being almost a rainless country, on the lower western slope there are but few streams; then too, owing to the latitude, there are no permanent ones until an elevation of sixteen or seventeen thousand feet or more is reached. There are two or three parallel ranges of the Andes running north and south, occasionally with interesting *quebradas* that make broad, flat valleys between. Owing to the general absence of soil, of vegetation, and of frost, these lower peaks —by which I mean those up to seven thousand feet or more, which is as high as I have seen them—are very singular in appearance. At a distance the general color under the bright sunlight (when it replaces the perpetually misty and cloudy sky of

Callão and Lima) is faintly red or salmon color. The whole country is pretty much covered with rocks or rubble washed down from the Andes, and the terraces cultivated by the Indians show how much work is needed to keep any semblance of soil thereon. In consequence of this movable character of the surface, the bottom of the valleys, even the narrow ones where the hills rise up very near by, is always comparatively flat.

From the road bed of the Verrugas bridge to the creek below is over two hundred and fifty feet. This structure was washed out, supposedly, by a heavy cloudburst that was seen gathering by a man going down the road of the main valley, and it caused such a jam of rocks, earth and water, next to the upper part of the structure, that nothing could stand it, for even the heavy iron work of the central pillars was not found nearer than half a mile away. This Verrugas *quebrada* joins a broader one (down which the trail and a railroad run to San Bartholemé) nearly at a right angle. When I saw it there was not a drop of water in the ravine, but the traces of the flood were plainly visible on the banks for at least thirty feet above the bottom. Nothing can be wilder than the scene looking up this *quebrada*, and I do not wonder that the man who saw the cloud gathering rode at full speed down the main valley without waiting for it to burst.

I was wrong in saying that these mountain sides and ravines are bare of vegetation, for a gray, thick lichen grows abundantly, and also a curious sort of columnar cactus a foot or two high, yet the general aspect is absolutely sterile. The conductor of the train, a bright little fellow who has been long in the country and now and then drops his *h*'s, pointed out with wearisome iteration signs upon signs of the existence of mineral lodes of all sorts, silver, copper, gold, quicksilver, etc., scattered all over these mountain sides which rose on either hand to three or four thousand feet above our train, yet not half a mile away; he was evidently infected with a mine mania, as would be any one here. I suppose nothing in the world can compare with the mineral wealth of the Andes, which has been hardly disturbed despite the greed of the early Spanish conquerors, and the enormous quantities already taken out, not to mention the treasures supposed (and known more or less), to have been hidden by the Incas from their Spanish conquerors, and worth all the secret treasure

stores of the world put together. I solemnly declare I almost expected to see some mass of native silver emerging from the soil before my very eyes.

I had to leave the ship very early, in the market boat, for the train starts from Callao only twice a week, at 7 A. M. It was absolutely drizzling when I went ashore, what they call locally *la garua*. The streets of Callao at this hour were not inviting, yet I had to walk about for half-an-hour, a cigar ingratiating me with the guardian of the peace, and we watched with equal interest the carrying off of a "*borracho*," (an intoxicated person), to the calaboose by a squad of soldiers.

To my surprise we did not go into Lima at all, but changing cars started on our journey from a station to the west of the city. Here the people going up the road began to appear, some in riding costumes—poncho, big spurs, and broad brimmed hats,—others in more or less civilized costumes. The pure Indian predominates in Peru, and even in the older settled portions they look quite wild as they come down from the mountain regions to the towns. I believe there are vast tracts of country in the North where the Indians have never, in any degree, been civilized, and where the territory has been hardly explored.

Lima is situate in a comparatively broad and large valley of the Rimac, a river which by the change of the R to L gave the present name to the city.—Lima was really named by the Spanish founders under Pizarro (for they found no town ready to their hands here), *La Ciudad de los Reyes*, that is "City of the Kings." The valley, which is thoroughly irrigated by *acqueias*, or canals from the river, for the first eight or ten miles is well cultivated, and there are several large sugar mills, with extensive fields of cane.—Railroads are usually provided on all plantations, and traverse them in every direction, to transport the cane to the mills, which latter are fitted with the best of modern machinery and make the best of sugar, crystallized like that of Guadalupe. As we ascended higher, the valley began to narrow in, still, however, keeping a comparatively flat bottom, with the river foaming along in the middle; and now were observed, at intervals, the ruins of ancient Inca villages built up on the mountain side and not without a resemblance to the *pueblas* of New Mexico and Arizona, though not really like them, as the latter are on the faces of cliffs,

and real cliffs are rare indeed in this part of the Andes, the slopes being steep but uniform. I hope ultimately to examine some of these ruins close at hand, for though deserted for centuries, perhaps, in this climate the *adobe* or mud walls remain perfect. The population of Peru was very much larger at the time of the Conquest, probably 15,000,000, and these ruins, as well as the perfectly preserved line of the *acqueias*, and the wonderful terrace works on the mountains, show what the need of the land was. Apparently terraces were made everywhere that water could be brought to them. Many of the steep *quebradas* have a little brook foaming down and uniting with a larger stream below, and this was, invariably, diverted from its course and led into a canal around the hills as high up as possible, and so encircling, that it could be drawn off into the lower terraces; by the aid of these, mountains several thousand feet high, and so steep that were it not for these terraces every bit of soil would be at once washed away, were cultivated nearly to the top, and this sometimes to a height of over 12,000 feet. The terraces I passed over going from Verrugas bridge to the valley below, varied in width from a few yards to a rod or two, and the walls, a few feet in height, are still quite intact, having been laid with small cobble stones. It is stated that soil was often brought from a distance to these terraces, and wonderful stories are told of the tunnels, etc., made to carry the canals. But now all these mountain sides are barren, and even were the irrigation works restored, the altered state of communication making it possible to support the population by importation, would make such labor unprofitable.

It is between forty-five and fifty miles from Lima to San Bartholemé, and by the track five miles more to Verrugas; but I shortened the latter distance, perhaps two miles, by climbing right up to the track 500 feet or more overhead, by a tough zigzag ascent practicable for mules. It is a mystery to me how the track goes up to the tunnel back of the station of San Bartholemé, but this is child's play to some of the V's it makes elsewhere. After striking the upper grade I had easy walking, the track being well filled in and ballasted, and soon came to the bridge. I did not have as much time to look about as desired, for I had to get back to the returning train; still I saw the bridge pretty well. I did not like to go on the structure as a strong wind was blowing down the

gorge, even though it had a hand rail. Between the two remaining ends of the bridge and connecting the same, was what at first looked like a cable—that is when observed from below,—but proved on closer inspection to be the guard rail of the track which in some wonderful manner remained secured by its bolts when the road-bed and all went from under it.

It will give a better idea of the steepness of the mountain side when I say I had to search some little time for the track to get down again into the valley. I ought to have gone right under the bridge itself where there was a sort of path to the bed of the stream, formerly used by the workmen, but this was not visible from where I stood, and not understanding fully the instructions of the conductor, I missed it and took the roughest and longest road, the only consolation being that it led me over the ancient terraces. I reached San Bartholemé, however, in good time, rather warm and very dry; though, half the time in the bed of as fine a brawling brook as one could wish to see, yet I dared not quench my thirst, for the water is said to be abominable—probably an undeserved reputation,—for a reason I will mention hereafter. At the station I got a glass of *chicha*, a native drink fermented from maize, and which, when fresh, tastes somewhat like root-beer. I was also lucky in finding here a herd of llamas, some forty or fifty, with their burdens.

The llama is a singular looking beast with a thick stovepipe neck, and something like a poor relation of the camel. They looked peaceable, but are said to be, sometimes, ill-tempered. They were of various colors, one large white fellow being really handsome; but I had hardly a minute to stare at them.

Speaking of the llamas reminds me that in Lima they have, or rather had, a beautiful park, with many beasts in cages kept for the delight of the populace; but the brutes of Chilians, who shamelessly laid hands on everything within reach, stole the animals, and even killed the poor elephant, the pride and joy of the whole community. I have heard things about this Chilian war which would fairly make one's hair stand on end; the atrocities perpetrated were some thing most horrible. Peru is a country which has been in constant revolution and turmoil since its independence in 1824, and Chili appears to have taken advantage of its weakness and picked a quarrel in order to extend her territory. The wealth of Peru consisted

of deposits of guano and nitrate beds (nitrate of soda, which lie mostly in the southern provinces), all of which are now, as the result of the war, practically owned by Chili. I am told that the native population of Chili, that is the Indian, or half-Indian, is a much fiercer lot than the Peruvian and far more brutal. Be this as it may, it is certain that before the Spanish conquest Chili was a comparatively barbarous country, and probably is still so. Where Chili had the advantage was in the much larger number of people of foreign birth or parentage, English especially, which gave them a stronger government and more intelligence.

I quite forgot to mention that when the train got up some 2,000 feet or more we left behind the cloud and drift and rolled into a bright sunshine that alone was worth going to see; though the sun was warm, yet the air was fresh, and save for two little tunnels there was not a bit of shade on the track. *Verrugas* in Spanish means "warts," and this particular *quebrada* is so named because of a certain peculiar disease (that occurs now and then as an epidemic) supposed to be endemic there, and to be produced by the water,—a doubtful statement, but which I nevertheless respected sufficiently to let the water alone. The *Verrugas* fever, as it is sometimes called, is mentioned by Prescott as occurring among Pizarro's men, nearly disabling them for a time, and of late years it has been described. It is not by any means peculiar to one district, but places like these deep gorges may tend to produce it, exactly a goitre prevails in certain portions of the Alps.

On our way back I have seldom seen anything finer than the lower part of the valley of the Rimac with its great fields of cane showing for miles away, with a yellow green hue like a lake covered with the sort of slime one sees on stagnant ponds.—This is not a pretty comparison but it is a true one.

A triumph in engineering is reported from the mountains of Peru, where a twin-screw steamer of 540 tons, 170 feet long and thirty feet beam, has been successfully launched on Lake Titicaca, the highest navigable water in the world, being more than 13,000 feet above the sea. This steamer, which belongs to the Peruvian government, and is used for freight and passenger traffic, was built on the Clyde, taken apart, shipped to Mollendo by sea, then carried to Puño by

railway and transported over the mountains on the backs of llamas and mules, and again put together.

The few Peruvian military displays I have seen, evinced a much better equipped rank and file than I should have expected; the men, half Indian or more, short indeed, but rather rugged looking, and I am told, excellent in the field, when properly officered and led. The only occasion when I saw any considerable body of them, and no very great turn out then, was on Sunday, the 28th of July, the anniversary of Peruvian Independence. On this day Congress meets, and after a solemn high mass at the cathedral, at which the President and all his officers are present, it opens formally in the chambers. I did not go to the cathedral as I ought to have done, but looked down from the balcony. By chance it was a fine bright day, and the troops, resplendent in new uniforms served out for the occasion, were drawn up in the *plaza* opposite the palace. There were a lot of infantry and thirty pieces or more of artillery. The uniform of the men is rather neat, being of coarse, dark blue cloth, but with too much red facing; the officers had red trousers and a general imitation-French air, and all wore fine swords; being usually good riders and well mounted, the latter did not look badly on horse-back. Such a constant and unnecessary and long-drawn-out blowing of bugles I never heard,—all these people seem to have great faith in the bugle; but I was diverted by one little by-play just under my window: All the soldiers had their wives and sweethearts somewhere about, and numberless little booths for the sale of refreshments were stuck up in and about the *plaza*. At the moment when the bustle at the cathedral seemed to indicate that the President was about to come out, and the attention of the officers was attracted to that quarter, up skipped one of the women with a pot of *chicha* under her *manta*. Her husband, or lover, drank first, and deep (as was his right), his comrades screening him from view; then he passed around what was left, which was disposed of by his companions in the same dexterous fashion, and all in about five seconds. The woman stepped back onto the sidewalk with the pot under her *manta* and a broad smile of triumph on her face as she looked up and caught the eye of some of us who had been watching her manœuvre with interest.

Callao, Peru, August 14th.—This morning is quite typical winter weather for this

region—sky a dull gray, but the day warm enough, with no wind; the sea like a pond on a cool morning in summer as we see it at home, with no perceptible swell unless closely looked for; yet the boat in going through the water reminds one that he is not crossing a lovely pond, quite. About half way across the three or four miles which separate San Lorenzo Island from the main land, is a reef, termed a "whaleback," and there the surf rolls in after a fashion very unlike a pond. Numberless pelicans and great seals are swimming about; the latter always interest me, they seem so tame and domestic as they stick their heads out of water and peer about curiously. The pelicans are also diverting, with such a solemn air about them as they fly about with their prodigious beaks hanging straight down, or sit on the water, or on a buoy, sometimes in little groups talking steadily to one another. They are great fishers, and every now and then one goes pouncing into the water, and disappears miraculously for so large a bird, and presently emerges with or without its prey; in the latter case he looks distinctly melancholy as he flies off again vigorously pushing himself out of the water with his great feet; but if he has caught his fish it is a real satisfaction to see him take it into his capacious gullet, after which he stays for some time triumphantly floating about. These "pelicans of the wilderness" seem of a haughty disposition, and plump down beside the afore mentioned seals without any trace of fear. The gulls even, who are not easily abashed, seem few in numbers and very weak among the pelicans, though I do not know that the latter molest them.

After seals and pelicans I ought to mention the fauna existing on board the ship itself. Rats, unfortunately, are plenty, though not so bad as on some ships I have seen. If I had a cat I would chain in my room where he might at least terrify the invaders. On deck we frequently see them in the rigging, —which they climb like sailors,—or running about the hammock nettings. These (and more or less cockroaches) are our wild beasts; but there is also a collection of pets. First in rank among the latter I place the macaw, for he can talk, an accomplishment I have never before seen in a macaw; he excels by far, in linguistic accomplishment, any of the parrots, and moreover has a good presence despite a broken wing, which however is fast mending; he is also of mild disposition, and I have had him on my finger,

though his enormous beak looks perilous. All in all, he is a bird of undoubted intelligence and of much dignity of deportment.

Next comes a squirrel, caught in Payta, with a resemblance to the North American gray variety, yet unlike, though about the same size, and much the same coloring; his tail is so poorly furred that it resembles nothing so much as a worn-out feather duster, and his ears are inordinately large, and are bored, with tufts of red worsted in them,—some day he is to have real silver earrings. He is lean, and one would swear pale of face as if he had not had enough to eat, and his ever protuberant glassy eyes start out of his head when he looks at you, though he is a cheerful, impudent little beggar and much of a favorite, but obliged to be kept in his house too much, because he is accused of gnawing the running rigging. He, too, is very tame and when called will jump up and playfully nibble at buttons, watch chain, or anything that strikes his fancy.

There are various other birds besides parrots and macaws, but nothing worthy of much interest; there have been one or two monkeys, but I have not seen them lately, and fancy they have died, or been disposed of. All these pets belong to the men, and it is a good thing to have them aboard, though under a sort of perpetual protest.

Callao, September 3rd.—We sail for a 5,400-mile trip in a few days, and it is probable our friends will not hear from us for from six to eight weeks, according to luck and wind. To-day I called upon the American Minister, whose *menage* I believe I have not mentioned. His name is H— and he is from Oshkosh, the first from this locality (Monsieur, Madame and all) that I have ever met in the flesh socially, and they are worthy of their reputation. The Secretary of Legation is an ancient officer, and I came to call on the Minister through his instigation because the representative of the great republic is ill; but he doesn't want a doctor anyway.—These Oshkoshians have a native fund of good sense, but his supporters thought it would be as well to have a medical man as a bait. *Madame la Ministre* introduced me to an ancient French gentleman (who was calling on her at the time), and also, in a confused manner, to a "Sir Charles," finally explaining it was Sir Charles Maynard, the English diplomat. I think she thought much more of me because I was not cowed by this dignitary, and the

poor old fellow seemed quite enlivened at having somewhat of a substitute to talk to. I do not wish to boast of my *aplomb* in the presence of titles, but Lord Donoughmore, who is here as representative of the English syndicate which is negotiating a treaty to buy up all the railroads of Peru in exchange for their national debt, is quite well known to me, though I do not call him "Donny" as his older acquaintances mostly do. This worthy peer, whose breeches if they cost him more than a "crown" were high in the market, is rather a young man, and highly accessible,—not at all the proud aristocrat,—and by no means a fool. I suppose he is Irish from his title, or at least by residence.

September 9th.—I have been up the Oroya road again, but unluckily the train was late so did not have time to take the walk to the Verrugas bridge. It was, however, interesting enough to repay me for the long dusty journey, especially coming back, when the view had in occasional glimpses looking down the steep, narrow and winding valley of the Rimac was even more impressive than before. I also noticed more and more wonderful specimens of the Inca terrace work on the mountains, and am told that up at the height of 15,000 feet there even better ones. What chiefly puzzles me is the question of irrigation as, from this distance at least, it seems impossible that some of the higher terraces could have been supplied with water, but the difficulty might disappear on closer inspection. I saw more llamas, and stared at them to my heart's content, having time enough: They had brought down ore from some of the nearer mines. One mining company employs five or six thousand of them, and it would be impossible to get along without these creatures at these altitudes, where they are perfectly comfortable, and where donkeys cannot live. They carry their loads, laid on their broad, woolly backs without girth, and over seemingly impossible paths, and their relation to the camel family gradually grows on one. For strangers they appear to have no love, and I did not care to stroke for fear of their biting or spitting on me, which last is a trick they have, and the saliva is so acrid as to temporarily blind one if it gets into the eye. On being approached, when kneeling down at rest, their countenances were extremely forbidding and touch-me-not, and they gave a sort of low whine in a fretful treble something like the mew of a cat. There were

two *madronas* or "bell-wethers" which led the herd; and these had on collars with three or four pretty large bells, besides a head-dress of gay worsted work. The *madronas* (literally "mothers") looked more supercilious than the rest.

At Sea, October 6th.—We have had, so far, a rather uneventful and quick passage; are two-thirds of the way to Honolulu and should arrive there in ten days. The last week of a voyage always seems the longest, and, already, as one begins to look forward to the end, it is difficult to pass away the days with all the reading and playing of games I can manage. It is just beginning to get hot, the weather up to the last few days having been cool enough to make it comfortable sleeping below; even now it is well enough on deck. We struck the northeast trades yesterday, and now have abandoned steam and are trusting to the wind to carry us to port. The immensity of the Pacific strikes one on a trip like this, on account of the absence of any sail or sign of any one else having ever been here. This is so different from the Atlantic where one cannot travel 5,000 miles without meeting many other vessels. Here it is a rare exception, and we have sighted absolutely nothing since we left Callao, if I except one sea-turtle that was asleep, and I did not even see this lonesome creature. To be sure, during the ten days to come there is plenty of time for adventure. Surely there was never weather milder than experienced in this part of the Pacific, which, especially to the southward and eastward, where we came from, is well named.

October 7th. Another day gone, and uneventful except a fair run of some 180 miles. If the wind holds we shall be in Honolulu on the 16th or 17th, possibly before. There is usually in these Pacific trades a heavy, though not very high sea; the immense extent and depth of the water causes a long heavy swell, though not usually troublesome. I think again and speak again of the peculiar solitude of this ocean—never anything in sight, and hardly ever have I seen so much as a clump of seaweed.

October 8th.—I should say October 9th, for it has just gone eight bells—midnight. I have been on deck taking fresh air largely mixed with the rain, for it is both warm and close below. We had a good run today, again about 180 miles—almost too good to last; but I hope we shall be in Honolulu in another week.

(Continued.)

Rejuvenescence of the Hair.—

A patient of mine, aged sixty-one, grey-headed and bald (I believe he lost his hair somewhat early), noticing a strong smell of gas in his drawing-room, proceeded to discover the cause with the aid of a lighted candle. He certainly found the leakage, at the same time causing an explosion which set fire to the place, and blew off what hair he possessed, severely burning and blistering the scalp. He recovered from the shock in a few days, and when the burns had healed went about as usual, wearing a silk cap. I saw no more of him until he called to pay his half-yearly account and to show me his "new head of hair." It is somewhat of a dull brown color, with a few white strands amongst it. It has grown all over his head, so that he is no longer bald. He tells me he now has quite as much as he had when thirty years of age, and he quite considers his "restorer" a powerful rival to any advertised.—HARRIS (*The Lancet*, London.)

The Pelvis of the Soudan Woman.—

In a Halle inaugural dissertation, Doctor P. Römer describes five Soudan women's pelvises in his collection. All are of light and graceful build, with a decided flaring of the ilia: Contrary to Vrolik, the author found no striking reduction of the transverse, but increase of the antero-posterior diameter. In one instance the superior strait was moderately, and in another exquisitely, transverse-ovate; in a third it was more round than oval; in a fourth and fifth it was quite round,—so there cannot be said to be any typical form of the pelvic entrance. The sacrum was small and slender, made up of five vertebræ in three instances, and of six in two; there were great differences in its curvature.

The Soudanese are distinguished from related Polynesians by their shallow pelvises, while the skulls of all are brachycephalic. The Malay pelvis is smaller than the European, shallower and of more slender build.—*Centralblatt für Gynakologie*.

Cerium.—

There is certainly something odd about this element. Monazite sand yields three different ceriums, agreeing in spectroscopic character and in the ordinary reactions of the metal, but not in all chemical respects, they having the respective atomic weights of 138, 148 and 157.—SCHUTZENBERG (*Progressive Age*.)

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

DR. G. ARCHIE STOCKWELL, Editor.

—ISSUED BY—

THE J. F. HARTZ CO.,
Publishers, Booksellers and Importers.

NOTE.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, at 270 Woodward Avenue, Detroit, Michigan. U. S. A.

DETROIT, MICH., JUNE, 1901.

Editorial.

CALOMEL ADMINISTRATION AND PTYALISM.

The question of the transformation of mercury submuriate into corrosive sublimate within the human organism, continues to excite the attention of therapeutists. Only recently the subject was again taken up by the Therapeutical Society of Paris, when Patein declared the theory of such transformation in the presence of sodium chloride (as hitherto generally claimed, and as upheld by Miahle, *et al*), is wholly false; he believes that calomel can not be changed into bi-chloride through contact with the alkaline chlorides, or by any action of the gastric juice, and in this he is corroborated by Pouchet who, assumes that neither bromides or chlorides possess a transforming power, but that such change in the mercurous salt is only possible in the presence of an alkaline iodide; or that if it takes place as the result of contact with a chloride, such chemical action cannot with certainty be avoided by simple abstention from salted articles of food, which as a number of colleagues pointed out, would likewise require all the chlorides to be removed from the economy.

The foregoing arguments will excite some surprise among these who have had practical experience with the administra-

tion of mercurous chloride, and the contentions made are, to say the least, open to considerable doubt. If alkaline iodides only are at fault, why is it the orthodox prophylaxis and treatment by potassium iodide is upheld in all cases of mercurial ptyalism? As is well known this salt, in certain proportions, transforms corrosive sublimate into the less soluble *deuto-iodide*, but unless these proportions are very carefully adjusted the toxic manifestations of the bi-chloride are enhanced. Iodine and water will decompose mercurous into *mercuric* chloride and iodide of mercury, but this chemical action, though simple enough in the test tube, is very uncertain and hard to obtain within the economy by reason of the digestive acids and ferments, i. e., the gastric juice on the one hand, and the pancreatic fluid and biliary acids on the other.—These seem not to be taken into account in the general run of discussions. Further the secretions of the active and normal duodenum are now known to be, not alkaline, but acid!

Again, the most certain way to induce ptyalism is to permit a diet of salt pickles (fresh from the brine and prior to the addition of any acid) a few hours after the mercurial has been ingested; indeed, with a moderate dose of calomel there seems to be created an abnormal craving for salted foods which, too often, despite the efforts and warnings of the medical attendant, is gratified.

Most acids, vegetable as well as mineral, tend to induce more or less evidence of salivation if taken into the stomach within a brief period following the ingestion of a small (or medium) dose of the lesser chloride, and practical experience and observation afford valid reasons for the assumption that both the mercurial and the acids stimulate an increased flow

of the gastric and duodenal fluids, whereby these latter, perhaps, may become pertinent factors in the accident. Again, a most common procedure, and one that has had the sanction of "authority" (whatever this term may mean), is to prescribe calomel in conjunction with sodium bicarbonate—it being held the alkali will neutralize the digestive acids, and thus avoid a possible ptyalism. The result, however, is just the reverse of that anticipated and as inculcated by theory; the small amount of bicarbonate permissible stimulates the secretion of the gastric juice (being aided perhaps by the mercurial) and a practical hyperchlorhydria is obtained.—Hence the fallacy of this particular combination; at least twenty grains of bicarbonate is required to render neutral the secretions of the normal stomach under ordinary conditions.

But, to return to our "muttons": The chlorides of the economy, and the chlorides that are ingested in a way to permit of chemical action with calomel, constitute two widely apart propositions. Another thing, with a large dose of calomel, fifty to sixty grains, which tends to speedily eliminate itself, it is very difficult to secure salivation. *Per contra*, one grain of the drug, given in divided doses over a period of twelve hours will speedily ensure ptyalism—this was the old fashioned method whereby the remedy was administered, not alone for its alterative action, but also for the purpose of "touching the gums." Evidently then, *elimination* is the chief factor to be considered when administering calomel, and consequently no such satisfactory results accrue to the employment of this drug in small doses, as is to be obtained through the large.

Manifestly the problem of calomel salivation, from a chemico-physiological

standpoint, is as far as ever from being satisfactorily solved.

THE ARMY "CANTEEN" ENDORSED.

The Committee on Legislation of the American Medical Association, at the recent session of the latter in St. Paul, presented a report recapitulating the resolutions adopted the week before by the National Association of Military Surgeons, with the following comment:

This resolution, the outgrowth of careful study and observation by the Medical Department of the United States Army, is concurred in by the commanding officers at the several posts, and intended to correct serious abuses under the present law, which result in drunkenness, desertion, insubordination, dishonorable discharge, crime, poverty, and appalling increase in disease and invalidism amongst the troops. We find that the experience of foreign governments coincides with that of the National Association of Military Surgeons in the necessity for the Army Post Exchange or Canteen.

The following was then adopted:

Resolved that this Body deplores the action of Congress in abolishing the Army Post Exchange, and in the interests of discipline, morality and sanitation, recommends its re-establishment at the earliest possible date.

The foregoing will undoubtedly meet with the approval of all honest, thinking people; at the same time we do not suppose it will be hailed with "joy unalloyed" by those members of the female sex appropriately designated as "women with a mission." One particular organization which comes under this head, and to whose efforts the abolishing of the "Canteen" is largely due, will, of course, raise a violent protest not unaccompanied with "howls" of morality, etc., but this organization has never been known to be in any sense, despite its distinctive title, temperate in its demands.

In line with the foregoing: A petition sent to the Russian Military Cabinet ask-

ing that spirits as a beverage be denied the army, was declined on the ground that the amount supplied each soldier is small, and given only at infrequent intervals." Such moderate consumption of liquor is held, by the Russian military authorities, to be harmless.

A MODERN SNOB.

In looking over the "Life of Charles James Lever," the well known author of "Charles O'Malley," "Harry Lorrequer," "The Dodd Family Abroad," and some thirty other works of fiction, we find the following criticism of the snob, an individual whom Thackery characterized as "one who attempts to assume a station in life above that to which he belongs."

With the laborer, the farmer, the woodsman, and even the Indian, I can live in daily, even hourly companionship, for an indefinite period of time, and I can put up with as coarse food as any of them, wear as coarse clothes, lay down on as mean a bed, talk as shoppily and penuriously, think as humbly. But I can not endure the well-dressed upstart, devoid of birth or breeding, and the continual quasi-refinement of the people of new-made wealth, nor the pretension of one who feels that by money he is the equal of all and the superior of most. Gentility is a matter of birth, breeding and education, but not to be purchased like potatoes and cabbages across a counter, nor like pinchbeck watches had from the hands of the auctioneer.

EDITORIAL NOTES.

Acute Rheumatism and Endocarditis.—

The contention of Doctor Alexander Harken, as made in 1889, that when acute rheumatism develops after a chill the initial mischief is endocarditis, has latterly obtained many adherents; likewise also his recommendation that when any cardiac disturbances can be detected, a blister applied to the region of the heart "will promptly cut short the attack of rheumatism." These ideas have recently received confirmation at the hands of a num-

ber of experienced medical men in Great Britain.

Certainly the remedy is simple of application, and at most no harm can result—and with care, not even pain. We would advise, however, that the epispastic be not permitted to complete the vesication, but that when the part has become well reddened, the blister be removed and a hot poultice applied, which will complete the work of the former.

Free Hydrogen in the Air.—

Recent experiments by Professors Dewar and Liveing have demonstrated the existence in the atmosphere of a sensible proportion of free hydrogen—the presence of this element, in a free state, has not heretofore been satisfactorily shown. "It is regarded as probable that on account of the high velocity of the hydrogen molecule, free hydrogen can not be permanently retained by the earth, and that there must be a continual accession of this gas from the inter-planetary space."

Antiquity of Man.—

This problem receives an interesting answer in the latest edition of De Mortillet's "Origin and Antiquity of Man." The total number of years elapsed since, according to geological evidence, man first appeared upon the Earth is placed at 238,000: Of this 78,000 years belong to the Pre-Glacial epoch; 100,000 to the Glacial; 44,000 to the interval between the Glacial and Proto-Historic; 10,000 to the latter and the Neolithic; and 6,000 years to the time elapsed since the beginning of the Historic period in Egypt.

A Worthy Enterprise.—

The "Society for Kitchens for the Sick" has opened its first establishment in Berlin, Germany, and hopes to supply a widely-spread want by sending out invalids'

food to patients' own houses. The arrangements are extremely practical and well thought out in every detail. Packed in modern "thermophore" apparatus, the prepared food will reach the invalids' houses without losing heat. The scale of prices is said to be extremely moderate.

There are openings for like enterprises in every city in the United States.

New Device for Intestinal Anastomosis.—

A novel and most practical device—if the claims made are substantiated—is the "crushable button" invented by Doctor Coffey, of Portland, Ore., which is made by cutting a ring out of potato with tin tubes of suitable sizes, then, by cutting a groove along its periphery to receive the ends of the intestine.

"After tying 'purse-string' sutures, and leaving the ends long," says the inventor, "the gut is sutured very near the mesenteric border (where the 'purse-strings' emerge), entirely around the button. After applying the continuous suture the 'purse-strings' are cut and removed." Finally, when anastomosis is complete, the button is crushed, and readily cared for by the intestine.

A New Anæsthetic.—

It is announced that the odoriferous secretion of the skunk is a powerful anæsthetic.

Well—it ought to be! But we doubt very much its *practical* utility. It is probable the secretions of all the Mustelidæ partake more or less of this character. Even the product of the gland of the beaver (*Castoreum*) is to some extent anæsthetic when employed in solution, subcutaneously, but nevertheless is not generally available, for reasons obvious.

Items and News.

Cat Tracheotomy.—

Tabby swallowed a strong fish bone which stuck in her throat and defied all attempts at removal: The efforts made in the direction of relief only tortured the poor thing, who fled and hid herself, and was found only after many days, very weak through starvation, but still alive. There had been a course of medical lectures in the place, and Tabby's mistress gives the following account of what happened:

Puss had performed tracheotomy, neatly shaving off a circular patch of hair on her throat and cutting the wind-pipe—oh, wonderful animal!—below the part where the bone still stuck. She was breathing, when found, through the orifice she herself had made. I now easily removed the bone, treated the wound antiseptically and nursed her back to health.

Any suggestion that the cat had merely scratched herself to pieces in her agony and breathlessness would have simply assured the contempt of her mistress for, "why was there not torn skin *above* the place of the fish bone; and why was all done with the art of a trained nurse?"—*The Daily News* (London.)

Medical Supplies for the Army.—

It is understood that the contracts have, for the most part, been secured by Eastern parties, though heretofore Detroit has been largely favored. Among the fortunate bidders of this city is the house of J. F. Hartz Co.—*Exchange*.

Professional Secrecy in France.—

According to article 378 of the French Penal Code, a physician is forbidden to reveal any secrets confided to him, or of which he becomes cognizant, in the exercise of his profession. A married woman, applying for a divorce from her husband, sought permission to introduce in evidence certain letters addressed to her by Doctor Cordonnier, who had attended her husband, to show the nature of his malady. The court commenced by laying down that the physician does not exceed the limits of his rights when he informs, by letter, the wife of a man who he is attending, of the causes and nature of her husband's disease; but it adds that these letters must not be divulged, even by agree-

ment between the sender and the recipient, as the obligation to professional secrecy imposed by the law does not permit of his consenting to their publication.—*Echo Médical du Nord.*

The Anglo-Saxon Race.—

The immense virility of this race, like the sturdy oak, may resist the encroachment of the canker worm for generations, but unless purged and purified of disease, it will at last crumble and decay. Whatever undercurrent evidences of degeneration may obtain, there is no apparent diminution of national power. The two great branches of the Anglo-Saxon family on both sides of the Atlantic, never exhibited so much racial and national vitality as to-day.—*Dietetic Gazette.*

Infant Foods, Insufficiency of Artificial.—

The results of analyses of human milk are never identical, therefore, the demand for an exactly equivalent substitute is unjustifiable. Nature is more liberal in allowing latitude than the chemist. Heat both improves and injures milk; and boiled, or sterilized cow's milk is never woman's milk. The process of sterilization is indispensable because it destroys pathogenic bacteria. The artificial food of the infant should be amply diluted, because of the heterogeneous composition of cow's milk. Home-made foods are preferable to the proprietary foods of the market.—JACOBI.

Sexual Appetency and Sexual Legislation.—

Sexual appetency belongs equally to the male and the female, and in establishing legislative acts governing this question both must be considered. The young man needs protection against the wiles of the designing *demi-mondaine*, who is often below the age of eighteen years, quite as much as the young woman against the vicious man.—*New York Medical Journal.*

Coal-Tar Derivatives, Identification of.—

If a small quantity be placed in a dry test-tube, a little chloride of zinc added, and the whole heated, aromatic vapors will indicate acetanilid; acetic-acid odor, phenacetin; and an odor resembling fresh carbon disulphide, evidences antipyrin is present.—*Canadian Pharmacist.*

Cinnamon, Adulterated.—

The adulterant for cinnamon chiefly used is guava-, or jungle-bark, which is carefully peeled, prepared and dried, and closely resembles cinnamon in appearance. The sweet odor and the still sweeter taste are managed by immersion in large tubs of waste water from the distillation of cinnamon oil, and afterwards, when dry, by the slightest touch on each end and of a bundle of the false pipes with a cloth saturated with cheap cassia oil.—*Chemist and Druggist.*

The Use of Preservatives in Food.—

Many things are inimical to the bacteria of putrefaction that in no way injure the human organism if administered in small amount. In using boracic acid or borax as preservatives, it may be remembered that one of the functions of the kidneys is to carry off just such foreign substances and soluble mineral compounds. These organs can, and do, carry off vastly greater amounts of single foreign substances (where people are in the habit of taking saline cathartics) than there ever are in food in which a few grains of a preservative have been placed.—*Dietetic Gazette.*

Advent of Mahogany.—

Mahogany was originally sent to a certain Doctor Gibbon, of London, by a friend, as a remedial agent, with the statement it is used by certain Indian tribes as a febrifuge. Repeated trials proving its negative character, Gibbon ordered a desk fashioned out of the block, and, being struck by the beauty thereof relinquished his practice and became an importer of mahogany instead.—*Western Druggist.*

Liquid Air in Medicine.—

It does not seem that liquid air promises to extend greatly the therapeutic field, and it will be unwise to have too sanguine an estimate on its uses in medicine, however interesting a product it may be to the physicist.—*Medical Press and Circular.*

Pus in Urine.—When intending to examine under the microscope for pus cells, they will always be rendered more visible by first adding to the specimen a little tincture of guaiac, which colors the cells blue.—*Dominion Medical Monthly.*

Book Reviews.

In the Wake of King James, or Dun-Randall on the Sea. By Standish O'Grady. Cloth; 12 mo.; pp. 242. Price, \$1.25. The J. B. Lippincott Co., Philadelphia, Pa.

This is one of the most delightful books it has been our privilege to peruse. Though there is no preface or introduction, it manifestly is based on one of the many traditions that are harbored by the people inhabiting the west of Ireland.

A young officer in the service of William and Mary, after the suppression of the rising in the behalf of James II., is invited to visit his Jacobite cousins at Dun-Randall. He accepts the invitation in the spirit in which he supposes it to have been given, only to discover he has been lured to the wildest and most lawless portion of the island, with the intent to despoil him of his wealth and finish with his ignominious death. He finds a co-captive in the person of a fair maiden whose brother has mysteriously disappeared, and who has been torn from her home, and her tenants harried of their all by means of rack, torture, forged documents, etc.—she being destined to be the bride of Dun-Randall. Accident, however, secures the escape of the couple, chiefly through the efforts of the maiden; and incidentally appears a most wondrous and delightful description of caves, isles, and the wild and weird scenery peculiar to the west coast of Ireland. Ultimately the maiden secures a following, who under the leadership of her foster-brother and her lover—for so the young Williamite has become—penetrate the vaults of Dun-Randall, release the maiden, (who has been recaptured, and it on the point of being subjected to the rack,) and also her brother, who is found chained in the dungeon. Finally, the iniquitous rookery, with all its household and following, is blown into the air by firing the barrels of gunpowder that had been concealed in the foundation vaults for purposes of revolt.

From the first the Author holds the interest of the reader, and *finis* comes all too soon—the best possible test of a book. As a whole, the volume is a valuable contribution to the history of a time when religion and royal legitimacy, caused the hand of brother to be raised against brother, and sons to be arrayed against fathers. This is almost the first exploitation of the legendary history in which this little known district of Ireland is so rich. Mr. O'Grady is to be congratulated upon the success he has achieved in this field.

Our Animal Friends. Cloth: 4 to. The American Society for the Prevention of Cruelty to Animals, New York City:

This publication is doing good work in exciting interest in weak and abused animality. We wish a bound copy could be placed in every hotel, library, and reading room throughout the country, for the contents are not only educational, but suitable to all ages and classes; being devoid of all cant and abstruse theories, Our Animal Friends constitutes most healthy reading.

The Youth's Companion. \$1.75 per year. Perry, Mason & Co., Boston.

In the fifty-two weekly issues of the year this publication issues more than 200 stories, yet so carefully are they selected that they prove inexhaustible in variety, and unfailing in the power to delight.

Among the groups of stories appearing or about to appear in the present volume of the paper is one of "Old Settlers' Day Tales"—stories actually told at some of the gatherings of pioneers in the West. Then there are four stirring "Tales of Our Inland Seas," picturing the adventures of the sailors on the Great Lakes, and four "True Tales from the Zoos," told by famous keepers and trainers of wild beasts. And this is only a beginning. The Illustrated Announcement of the volume for 1901 with sample copies of the paper free to any address.

The Living Age. Price, 15 cts., or \$6.00 per year. Littell & Co., Boston.

After a successful career of fifty-seven years, this standard periodical seems as vigorous and prosperous as ever. Always chief, it is now the only eclectic weekly in this country. Its distinguishing characteristics are: It presents in convenient form a compilation of the world's choicest literature, encyclopaedic in its scope, character, comprehensiveness, and completeness, and with a freshness—owing to its frequent issue—attempted by no other publication. The ablest essays and reviews always appear therein, as well as the latest results of scientific research; also, biographical sketches, stories of travel and exploration, literary criticism, and every phase of culture and progress in the European world—the whole making an amount of reading of the highest value, and unapproached by any other magazine.

During 1901 the Department of Fiction will include, beside short stories, translations of representative European novelists.

Some acquaintance with foreign periodical literature is an absolute necessity to every one who desires to keep abreast of the world of thought, and to be in touch with the best results of the intellectual activity of the times; and in no other way can this be so satisfactorily, cheaply, and conveniently secured as through this weekly magazine.

Therapeutic Brevities.

Digitalis, Large Doses of, in Acute Alcoholism.—The good results reported by English and Swedish physicians with large doses of digitalis encouraged me to try the same in ten cases of delirium tremens, the tincture being given in four drachm doses every four hours for three doses. If the patient became quiet and the delirium disappeared, the remedy was stopped before the third dose; if not, another series of three doses, six hours apart, was ordered.—Usually not more than three doses were necessary. In only three of the ten cases were the results so pronounced and quick that there seemed to be no question that it was entirely due to the effect of the digitalis. The best effects were obtained in patients in early life, who were strong, robust and suffering from no complications, but with violent delirium: In such the results seemed to be exceptionally favorable. I would not advise more than three doses of the remedy as a rule.—LOOMIS (*Journal American Medical Association.*)

Carcinoma, Pain of.—When morphine, cocaine, and other local and general analgesics fail to give relief from pain in advanced or recurrent carcinoma, suprarenal extract sometimes proves invaluable. Use a ten-per-cent. solution, and apply locally two or three times in twenty-four hours. A patient with malignant œsophageal stricture, after weeks of pain found immediate relief therefrom after one teaspoonful of this remedy.—PETERS (*The Lancet, London.*)

Tobacco, Effects of.—The “weed” is harmful to most neurotics, though even among these we have known a few exceptions, to whom, when used in moderation, it seems decidedly beneficial. It is harmful in certain cases of cardiac affection; it affects the sight injuriously in some few people, and the throat in others, producing follicular pharyngitis. Used to excess it is bad for every one, as is everything else, even such wholesome things as bread or water. What constitutes excess is an individual question to be determined for each person either of himself or with the advice of his physician.—EDITORIAL (*New York Medical Journal.*)

After-Pains, Relief of.—In many cases a warm meal is better than any medicine, but where the pains are exhaustingly severe, turn to amyl nitrite. This potent drug is a very efficient controller of after-pains, and used cautiously no harm need be apprehended from it. A good way of using is to saturate a small piece of tissue-paper with five or six drops, stuff this into a two-drachm vial, and direct the patient to draw the cork and inhale the odor when she feels the pain coming. It acts with magical celerity.—*American Journal of Obstetrics.*

Ethyl Bromide.—

The advantages of this agent are:

The short space of time required to render the patient unconscious:

The small quantity employed and the rapidity of its elimination from the system:

Simplicity of administration, no cumbersome apparatus or inhaler being required, and:

Comparative freedom from unpleasant sequelæ, such as headache, nausea, vomiting, etc., which characterize the other and more popular anæsthetics.—KRUSEN.

Hæmorrhage with Debility.—Achillea, commonly known as yarrow, is especially adapted to the relief of morbid fluxes. It is most useful in the hæmorrhages of the weak when the flow each month is profuse, sometimes wholly sanguineous, sometimes partly leucorrhœal—the condition being likewise one of marked atony and the debilitating discharges accompanied by severe backache and not unfrequently by migraine.—*Medical Gleaner.*

Rheumatism and Tonsilitis.—I employ guaiac resin in these cases, but chiefly as a purgative. It is a nasty mixture, but my patients like it—at least the effects thereof. Give ten grains of the resin incorporated with sixty grains of honey, which dose may be gradually increased. It may be well to remember that guaiac sometimes produces a well marked rash.—MURRELL.

Gonorrhœa, Oil of Cedar-wood in.—Pure volatile oil of cedar-wood will be found an excellent substitute for santal-wood oil in this malady.—GEMY (*Pharmaceutische Centralblatt.*)

Passiflora Tincture.—I order the root of passiflora dug when the plant is in full bloom and the fruit forming. The root, vine, leaves, flowers, etc., are dried in the shade so as to free them of water and permit convenient grinding in a mill into coarse particles. This ground matter is packed into a stone jar holding three or four gallons; after the jar is full of the root, well packed in, alcohol is poured on to fill completely; from day to day as the root absorbs the alcohol, more is added. Maceration is allowed to continue from three to six or eight weeks, according to the temperature—the shorter time for summer months. The tincture is then poured off, and the magma put into a powerful press and all remaining fluid pressed out; if the pressing is thorough, the magma is as dry almost as dust; all the fluid is then mixed and filtered. The tincture thus obtained "is a gem of the purest water." Some prefer to make the tincture from root dug after the fruit has ripened, but I do not think it is as strong and active.—JOSEPH ADOLPHUS (*American Medical Journal.*)

Bed-sores.—If the nurse is competent this painful complication will rarely require treatment. It is advisable to rub the parts upon which the patient rests with alcohol, and daily sponging of the entire body with warm water and then with alcohol will add greatly to comfort. Should a suspicious spot of redness present, remove the pressure therefrom by an air-cushion, and prevent the folds of linen pressing patient. Dry dressings are preferable to moist for bed-sores, and oxide of zinc in powder or ointment is one of the most valuable remedies; acetate of aluminum has also a very beneficial effect. At times considerable loss of substance is found, giving rise to a very foul odor; in these cases a charcoal poultice acts remarkably well.—ROTCH (*American Medical Review.*)

Dyspepsia, Functional Chronic.—The first rule is to eat slowly, masticate thoroughly, and insalivate completely:—Three things which are by no means always the same. Next, is to take solids and liquids separately, the latter in the shape of hot water on rising in the morning, and again about four or five in the afternoon, and at night before going to bed. When these do not suffice to remove the dyspepsia, the patient must take his farinaceous and proteid foods at different meals alternately,—a fari-

naceous meal at breakfast-time and again at five o'clock, and meat or fish meals at mid-day and at eight o'clock. In some cases it will be found advantageous to supplement the gastric juice with a little weak acid. A little alkali with calumba may be given before meals, or if there is gastric catarrh, some substance containing tannin, such as infusion of gentian, may be preferable. In cases with flabby tongue, perchloride of iron with quassia will probably be of more service. When there is gastric dilatation which will not yield to the measures above mentioned, it may be necessary to wash out the stomach in the morning or at night.—BRUNTON (*The Clinical Journal, London.*)

Benzyl Benzoate.—The principle active constituent of Peru balsam is benzyl benzoate and this body also forms the greater part of what is known as cinnamon, a mixed product said to be chiefly benzyl cinnamate. Benzyl benzoate is a colorless oil, that is now produced synthetically; and the artificial product appears equally effective in relieving scabies as that obtained from Peru balsam; moreover, it is less irritating to the skin, owing to the absence of free acids, and has the advantage of being odorless.—ERDMANN.

Leprosy, New Treatment of.—I have treated two cases of leprosy by means of hypodermatic injections of corrosive sub-limate. This had previously been accidentally given to a case supposed to be one of syphilis, the true nature of which was revealed after the patient had been greatly benefited. The dose given was one-fifth of a grain injected into the buttocks. I believe mercuric chloride is worthy of further trial, as the improvement was very well marked in each case.—CROCKER (*The Lancet, London.*)

Uterine Prolapse.—This can be successfully treated with solution subsulphate of iron, well thrown up to the cervix two or three times a day: If parts become sore, use less frequently. Tincture nux vomica and tincture helonias, three times daily will prove beneficial adjuncts.—ROTHROCK.

Splenitis.—Make a plaster of diachylon 300, calomel 100, and castor oil thirty parts, and apply over the region of the spleen, renewing every eight days as long as necessary.—QUINQUAND.

Pneumonia.—The best possible cure for pneumonia is the ounce of prevention. Nasal obstruction and enlarged tonsils should receive immediate attention and radical treatment when necessary.—The nose has within its channels elements for clearing the air of foreign particles and warming it for the lungs. Whoever breathes through the mouth invites pneumonia. It is of the greatest importance that every inch of lung tissue should be in a relatively perfect condition. The sum of all the little spaces where air meets the blood is equal to the enormous area of 150 square yards. Each breath may be bringing in from the external atmosphere all manner of deleterious material, seeking some weak spot to gain a foothold. This weak place cannot exist without danger to health. The entire blood current comes to the lungs to obtain from the outside world the life-giving principle. This 150 square yards of tissue requires a supply of pure oxygen over a thousand times every hour. When children play, race, and romp, the lungs are filled in every part, and this very exercise of filling them strengthens their substance. Brisk walking, with deep inspirations and the mouth closed, helps sweep out the products of waste. Everything that expands the chest, as tennis, bowling, rowing, fencing, etc., is an antidote to possible pneumonia. Singing and reading aloud are admirable lung exercises. Sweeping, dusting, and the domestic process known as "cleaning up," are gymnastics within the reach of every one and have marked effect upon chest expansion. Indian clubs, dumb-bells, bean-bags, games with balls and graces, of necessity bring about a more thorough elimination of waste products and the introduction of a larger supply of oxygen and ozone. The "ounce of prevention" in this particular case is a compound of common sense, fresh air, and exercise, especially exercise of the upper extremities.—BRYSON.

Malaria, Quinine in.—As a preventive the drug will not do for those who are compelled to live indefinitely in a malarial climate, since by habituation it becomes a vaso-motor poison:

It acts as a specific in malarial fevers characterized by intermissions or well-marked remissions, but fails in the continued forms—those with typhoid-like symptoms; also in the malarias without temperature, and the cachexias and anaemias of malarial origin:

Warburg's tincture has an action not yet understood, by which the system is put in condition to benefit by quinine:

Quinine should never be used in haemoglobinuria, or subsequently given to one who has suffered from it, as it is liable to bring about a recurrence of the condition:

Only those living in regions of severe malarial disease can become competent to settle these questions pro or con.—VAN MARTER (*Texas Courier-Record of Medicine.*)

Pure Water Harmful.—Distilled water, or chemically pure water, is harmful, even poisonous, when introduced into the digestive tract. The addition of salt to enemas, and water used for lavage of the stomach, has become a general practice because of the knowledge that otherwise the delicate cells of the epithelial lining are apt to break down, as do the blood corpuscles, in pure water: For the same reason, "physiologic" salt solution is employed in nasal irrigation. The destruction of these cells is due to the abnormal endosmotic entrance of watery fluid, and consequent gorging and rupture, because of the unequal specific gravities of the interior and exterior fluids. Hence, when distilled, ice-, or boiled water are used as beverages, under a mistaken idea of their greater purity and wholesomeness, the unavoidable consequence is peptic disturbances eventuating in gastro-intestinal catarrh. A spring at Gastein, Germany, has from time immemorial borne the name of *giftbrunnen*, i. e., "poison spring," the only successful charge brought against its waters being that they are unusually free from mineral constituents.—KOPPE (*Munchiner Medicinische Wochenschrift.*)

The Wakamba Arrow Poison.—From the arrow poison, employed by the Wakamba tribe of German East Africa, has been isolated an extremely toxic glucoside, resembling ouabain in its action on the heart. The formula of the substance is found to be $C^{29}H^{46}O^{13}$. In the anhydrous state, it crystallizes in needles melting at 182°—184° C. It also forms larger plates, containing water of crystallization; these melt at 93°—94° C. It is insoluble in ether, acetic ether, chloroform and benzene; slightly soluble in cold alcohol or water, more so on warming; the solution is laevogyrate. The pure substance does not reduce Fehling's solution, but on hydrolyzing, with mineral acids a

yellow, amorphous, non-poisonous body separates from the aqueous filtrate which has marked reducing powers, gives an amorphous glucosazone, and ferments with yeast. The original substance dissolves in concentrated sulphuric acid with a reddish-brown color and a green fluorescence.—BRIEGER (*Deutsche Medizinal-Zeitung*.)

Puerperal Eclampsia.—In a case where convulsions occurred two weeks before the expected time of labor, I gave fourteen drops of tincture veratrum viride at once, and five drops every two hours thereafter until complete relief was had. Also employed enemas of potassium bromide and chloral hydrate, in large doses.

Labor came on the third day and was uneventful; the child proved to be only of the eighth month, and feeble. I have great and abiding faith in veratrum in these cases.—PARKER (*Atlanta Medical and Surgical Journal*.)

The Cigarette Habit.—It has not been shown that cigarette smoking is specially injurious to a healthy adult. Like many other things, if there is a constitutional taint it may be developed when tobacco is used to excess; but it is not to be conceived that it is essentially more injurious in cigarettes than in any other form.—*New York Medical Journal*.

A Practical Surgical Procedure.—In the case of a young lady who had run a needle into her right heel, in which it was broken off, the end being buried, she was made to wear a large, thick, corn-plaster, with a little damp cotton wool in the centre, and to tread freely on the heel. The end of the needle protruded within a week, and was easily removed.—STEEL.

Pleurodynia.—When this affection is accompanied by pain in the anterior mediastinum, gaultheria is an efficient remedy; but when the pleurodynia is associated with tuberculosis, guaiac rarely fails to afford relief.—*The Clinique*.

Tuberculosis, Urea in.—Nine cases of tuberculosis were treated with urea, twenty grains four times daily, with excellent results. Urea acts as a kind of antitoxin.—HARPER (*British Medical Journal*.)

Plaster Bandage.—To apply in fractures below the knee, have a stocking put on; this gives a clean, smooth inside surface. Apply circularly, first up then down, so as to leave a thin streak in front,—to be more easily cut. So applied the bandage fits like a glove, and leaves nothing to be desired to hold the fragments in place.—DODDS.

Benzoinated Lard.—The finest form of this emollient preparation is had by exhausting the benzoin with ether and adding to the filtered solution castor oil. Fifteen grammes of benzoin, thus prepared, may be mixed with one kilo of purified lard, and twenty grammes of white wax may also be incorporated if deemed necessary.—*Western Druggist*.

Codeine.—This drug is most effective in its minimum dose, and while as much as eight or ten grains can be used in twenty-four hours, by giving in one-eighth or one-fourth grain doses, not more than two or three grains at the utmost are needed, and in an average case a grain is sufficient.—*Wisconsin Medical Recorder*.

Rheumatism, Acute.—Acetanilid is not remedial; its persistent use either tends to fatality or to inducing cardiac complications that prevent perfect recovery.—SIMMONS (*Medical Gleaner*.)

Coryza, Infantile.—

Such may commonly be aborted by insufflating a small portion of the following:

Cocaine muriate	12 grains
Menthol	120 "
Milk sugar	120 "
Boracic acid	100 "

—*Journal de Médecine de Paris*.

Hepatic Disturbance, Functional.—

Rhubarb, powd.	8 grains
Sodium bicarb.	20 grains
Ipecac, powd.	1 grain
Nux vomica, tinct.	20 minims
Peppermint water, to make	4 ounces

A teaspoonful before each meal.

—LOCKWOOD.

Potassium Iodide in Prescription.—

Criticism is asked upon the following prescription :

Potassium iodide ..	2	drachms
Spirit nitrous ether.	1	ounce
Tinct. iron chloride.	1½	drachms
Gentian, comp. tinc.	12	drachms
Glycerin	4	drachms
Water, to make	4	ounces

Several reactions occur in compounding, each depending somewhat upon the order of procedure. The reaction most noticeable is that between potassium iodide and tincture of iron, free iodine being liberated.

Such a mixture is dangerous and should not be dispensed. Another reaction which always occurs is that between potassium iodide and spirit nitrous ether: In this case the prescription cannot be dispensed without such reaction taking place, iodine and nitrous oxide being liberated. Other criticisms might be made upon the probable changes likely to occur as that between the tincture of iron and the compound tincture of gentian. But enough has been said to show that the combination is a very bad one as regards chemical incompatibility.—*Pharmaceutical Era*.

Diabetes Mellitus.—

In thin subjects, with faulty assimilation, the following will be found useful:

(1) Arsenous acid	40 grains
Opium, powd.	80 grains
Ammonium muriate	300 grains

Make into 320 pills and take one after each meal.

—MARCUS.

(2) Opium powd.	12 grains
Inspissated ox-gall.	50 grains

Make 24 pills and take one thrice daily.

—BETHUNE.

(3) Codeine sulphate ...	6 grains
Nux vomica ext.	3 grains

Divide into 24 pills and take one three times daily, gradually increasing the dose.

—WILSON.

Furuncles, To Abort.—

Lime chloride	2 ounces
Camphor water	4 ounces
Tincture myrrh	2 drachms
Creosote, beechwood .	20 minimis
Glycerin	1 ounce

Apply constantly in form of wet compress.

This will positively remove the most ex-

cruciating pain in three or four hours, and will render any form of surgical treatment unnecessary if begun in time, and is constantly and faithfully applied.—BERTRAN.

Antiseptic Mouth Wash and Dentifrice.—

A pleasant liquid fulfilling both these conditions, and available in many forms of apthous stomatitis, may be made as follows :

Salol	375 grains
Saccharin	½ grain
Peppermint oil, true ..	75 minimis
Oil cloves, true ..	15 minimis
Oil caraway, true	¾ minim
Rectified spirit, to make	32 ounces

—*Scientific American*.

Endocarditis.—

Digitalis tinct.	1 ounce
Water and syrup, to make	6 ounces

A teaspoonful to a teaspoonful-and-one-half every four hours.

This is remedial when the heart's action is markedly irregular, but under other conditions better results will be obtained from drop doses of tincture veratrum viride every hour.—FOXTON.

Nasal Effusion From Catarrh.—

Bismuth sub-carb.	60 grains
Talc, powd.	60 grains
Alum exc., powd.	30 grains
Morphine acetate	1 grain
Gum Arabic, powd.	60 grains

Incorporate the ingredients as a snuff, and use a pinch three or four times daily, or as required.—SAJOUS.

Tubercular Enteritis.—

While the following is not curative, great relief may be had from its employment :

Iodoform	30 grains
Salol	30 grains
Tannic acid	60 grains

In 12 capsules: One three times daily.

—SMITH.

Palatable Castor Oil.—

A palatable emulsion may be prepared as follows:

Powdered gum Arabic	4 drachms
Castor oil	8 drachms
Saccharin elixir	10 minims
Oil bitter almonds	1 minim
Oil cloves	2 minims
Water, to make	2 ounces

Dissolve the gum in sufficient water and add the oil gradually; lastly add the flavoring.

—*Hospital Gazette* (London).

Whooping-Cough.—

Belladonna, tincture	2 drachms
Phenacetin	1 drachm
Spirit (Jamaica or Santa Cruz rum)	3 drachms
Chestnut leaves, fluid extract	12 drachms

Ten drops every two to six hours for an infant of one year.

A child of ten years may receive as much as a teaspoonful of the mixture.—LANCASTER.

Anti-Neuralgic Powder.—

Guarana, powdered	5 grains
Quinine muriate	1½ grains
Sodium bicarbonate	5 grains
Sodium salicylate	5 grains

For a single dose.

—*La Scalpel.*

Enuresis.—

Iron citrate	160 grs.
Syrup lime-lactophosphate.	2 ozs.
Syrup cascara, aromatic...	2 ozs.

A teaspoonful after dinner.

Sumach, fluid ext.	320 min.
Syrup	2 ozs.

A teaspoonful at bed time.

Continue treatment for several months.—

CASSIDY (*Canada Journal of Medicine*.)

Organic Cephalalgia.— There are very few headaches that give such overwhelming agony as those of organic character. These are usually, if not invariably, steady and violent.—If the pulse is also irregular it is confirmatory of the diagnosis. I know of no way in which relief can be more certainly obtained than by the use of potassium iodide.—DOUGLAS (*Public Health Journal*.)

Croup.—One-tenth grain calcium sulphide, given hourly, is said to be very valuable in croup, and to relieve even the worst cases.—*Medical Annual*.

Medical Progress.**Diseases Indicated by the Tongue.—**

The condition of the tongue varies considerably with the character of the disease or derangement the person is afflicted with. In certain affections the organ presents a white, moist appearance, due to the character of the epithelium on its surface, and spread over this epithelium are multitudes of bacteria, fungi, and the debris of food. This state is generally present in acute rheumatism, and it is interesting to observe how improvement in the condition of the tongue keeps pace with satisfactory changes in the patient.

In anaemic cases that suffer from digestive disturbances, the tongue is flabby and somewhat paler than normal, the vessels being imperfectly filled with blood, and the latter deficient in coloring matter; the organ is also larger than normal, swollen, and its edges marked with indentations of the teeth.

In chronic rheumatism the tongue is frequently white and covered with a thick fur; it is more moist than normal, and its epithelium covered with fungi. In this coating, numerous low organisms grow and multiply with amazing rapidity, and various organic matters collect, producing decomposition in the soft spongy mass that is formed in such great abundance.

In marked contrast is the bright red tongue observed in certain fevers, notably scarlatina—this is commonly known as the “strawberry tongue.” Here the fungi form papillæ are swollen and the blood-vessels greatly distended, presenting the characteristic appearance of a ripe California strawberry. This redness persists for considerable time, or until the new cells have accumulated in sufficient numbers to prevent the red blood from being distinctly seen in the vessels underneath the surface.

The tongue takes on another character, one entirely different from those just described, but as such is seldom observed in slight derangements, it may be dismissed in a few words: I refer to that dark brown or almost black appearance observed in typhoid fever and other low but severe forms of disease. In feverish conditions the moisture about the tongue dries up, and the mouth becomes very dry and hot: It is no longer bathed in

its natural secretions,—mucus ceases to be formed, and the saliva is so diminished in amount as to render the act of swallowing very difficult. As the severity of the fever abates, the tongue begins to look clean at its edges, and as convalescence advances the entire old covering is cast off, and new epithelium takes its place.

A condition of the tongue frequently observed in persons who suffer from weak digestion is characterized by chronic fissures, generally deep and very irregular in their arrangement. The organ is pale, moist, and from time to time covered with a white fur arranged in irregular patches; the papillæ at the edges of the cracks occasionally become enlarged, sore and tender, so that the eating of solid food is an exceedingly painful procedure: finally, the fissures keep on increasing in width and depth, almost exposing to the air the delicate nerve fibres of the part. Sufferers from this form of tongue require to be very careful as to the character of food ingested, as the digestive organs are very easily deranged, and they bear purgatives but poorly. Associated with these are also frequently observed similar changes in the mucous membrane of the mouth, palate, fauces, and throat: and pathological changes affecting the mouth or palate not infrequently extend into the larynx and trachea, or even into the bronchial tubes,—or may also pass up to the Eustachian tube, producing deafness, or entering the nose give rise to a very unpleasant condition termed "chronic nasal catarrh." Again, on looking into the posterior portion of the mouth it will be observed that the mucous membrane is not only redder than normal, but glazed and dry in patches,—an important pathological change has taken place in the sensitiveness of the delicate mucous membrane of the soft palate; reflex action is not so readily provoked as in health, and contraction of the pharyngeal muscles does not take place so freely, while the sensitiveness of the surface is somewhat numbed. — SULLIVAN (*Public Health Journal.*)

Operations on Diabetics.—

It is a generally accepted view that surgical operations on diabetic subjects are attended by so much more than ordinary risk that, under ordinary circumstances, they are

best avoided. In the abstract, no doubt, this view is correct, but there are circumstances and cases in which the objection does not hold good. No surgeon would refuse to operate, for instance, on a diabetic subject who happened to have a strangulated hernia or other form of acute intestinal obstruction. In general, when non-intervention would entail inevitable death, it is the surgeon's duty to shut his eyes to the diabetic complication and to operate. Apart from these operations of urgency the advance of medical science renders it possible to operate on diabetic subjects with a fair prospect of a happy issue, provided that proper precautions are taken to restrict the quantity of sugar in the system. This question recently came up for discussion at the Royal Medical and Chirurgical Society, when Mr. Barker related two very successful cases of intestinal surgery in diabetic subjects, showing that even under the most unfavorable circumstances surgical intervention in such patients is not necessarily a forlorn hope. From the point of view of surgical risk diabetics may be divided into two categories:

First.—The presence of sugar in the urine is a symptom, the significance whereof varies greatly according to the age of the patient in an elderly person of full habit it hardly constitutes a contraindication, whereas in a young person diabetes runs a much more rapid and fatal course:

Second.—There are other cases, however cases of true diabetes, in which sugar is only in part derived from the carbo-hydrates taken as food, a variable proportion thereof being of tissue disintegration. In these, diet however strict, does not remove the sugar from the urine, and the gravity of the prognosis is proportionately grave.

Looking at the question from another point of view, diabetics may be divided into two classes, one in which the sugar is of purely alimentary origin, in which a proper supervision of the diet will suffice to reduce the sugar in the urine to negligible proportions. A glycosuric person in whom the excretion of sugar can thus be controlled may, for surgical purposes, be regarded as one of average resistance and dealt with accordingly.

Obviously it is for the surgeon to ascertain, as far as possible, into which category his diabetic patients fall, because in the *second* class even the most trifling surgical operation may be attended by the most seri-

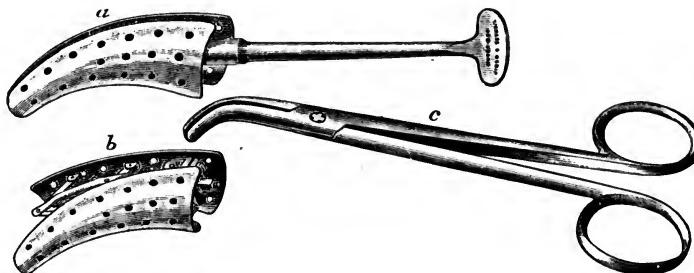
ous risks to life. The ease with which trifling traumatisms determine grave constitutional disturbance in diabetic subjects is extraordinary, as every practitioner knows to his cost. Unfortunately, the distinction between the two classes does not work out as satisfactorily in practice as it does in theory. In many—possibly the majority,—instances the cases are on the borderland, and though diet does to some extent diminish the excretion of sugar, there still remains enough to inspire anxiety as to the possible results of surgical intervention. In these cases prudence is the best counsellor, and as a general rule no operation except of the imperative kind should be performed. While medical science enables us to place certain diabetics in a comparatively satisfactory state for operation, it does not divest the presence of sugar of its fell significance, especially when

most importance, especially when the deflection is situated somewhat posteriorly:

Drainage being good, irrigation with the splint in position (and proper precaution as to the forward position of the head, instructions not to swallow during the injection of the fluid, and by imparting a moderate velocity to the inflowing medicament), can be successfully carried out. There is no need of its daily removal, and I leave the splint in position for five days, replacing it again for a like period, and removing it entirely at the end of that time. If, in its first introduction, too much or too little dilation of the splint has been effected, a few turns of the key either way, will bring about the desired effect:

Being of metal, these splints offer the minimum of opportunity for sepsis:

The splints are in three sizes, and are also made without perforations. Instead



observation shows that the sugar is not exclusively of alimentary origin.—*Medical Press and Circular.*

New Nasal Splint.—

This dilating nasal splint is to be used in the after-treatment of operated deflected septums, and presents the following favorable features:

The drainage permitted by the outspreading halves of this instrument when *in situ*, is maximum, and such a thing as "clogging" never occurs. Breathing through the previously stenosed nostril is at once established, and the satisfactory effect is immediately in evidence.

In the removal of the splint for the daily cleansing process, a few turns of the key converts it from size *b* to *a*, as indicated in the cut, and its removal and subsequent introduction are effected without the usual pain accompanying this manœuvre:

The distal as well as the proximal end of the splint dilates equally; this is of the ut-

of the side plates being concavo-convex, I have them also made perfectly flat.

The key of the splint when in position acts also as introducer. The forceps grasp the splint when in position, thus preventing any slipping or twisting. It is my custom to dip in sterilized olive oil before introduction.—ALTER (*Medical Record.*)

"Krymotherapy" in Phthisis.—

Apply, during half an hour every morning, to the epigastric and hepatic regions, a bag containing about two kilogrammes of solid carbonic acid, the skin being protected by a thick layer of cotton wool, and maintain therewith a temperature of about 13° Fhr. A second application may precede the evening meal.

Those who first experimented with extremely low temperatures, imagined that thereby the diathermancy of even bad conductors of heat is so much increased that the rays traverse them as swiftly as light through glass. Pictet, Chasset, and

Cordes treated their phthisis cases by means of "frigoric pits," but we prefer the above method, and think that some organs, notably the liver, are thereby cooled more than others. The economy as a whole has to resist the cooling process, and the result is an increase of nutritive changes—a burning up of old- and absorption of new materials,—along with stimulation of appetite corresponding to the increased digestive vigor.—LETULLE and RIBARD (*La Presse Médicalé*.)

[If nothing else can be said for the foregoing, it at least creates an artificial demand for fats in the patient so treated, whereby the consumption of carbo-hydrates is materially enhanced: But there are also to be considered the dangers that may accrue to the sudden change from high to low temperature, and *vice versa*, including the possibilities of superficial *frost-gangrene*. If, as Pictet claims, the circulation is all sufficient to equalize this, than the therapeutic value of the method is, manifestly, practically *nil*. It is particularly unfortunate in one sense that the nerve changes induced by consumption lead to improvement by so-called "suggestion," continuing for a greater or less period with every new method instituted.—Ed.]

Artificial Glycosuria in Animals.—

A bitch of a very affectionate, timid, and jealous disposition, four years of age, when imprisoned alone all day whined continually, and her cries became terrible when she saw other dogs enjoying liberty. During three days of imprisonment the urine gave no reaction, but on the evening of the fourth day it contained 5.55 per 1000 of sugar. The glycosuria persisted during the captivity. The day after she was set at liberty the sugar disappeared. The experiment was repeated six times upon this dog with the same result,—that is at the end of four, three, or even two days of imprisonment, glycosuria appeared, but soon vanished when she was set free to join her companions. The quantity of sugar increased to 6.66, 8.88, and, at another time, to 25. per 1000,—a high proportion in comparison with that generally found in animals suffering from diabetes. Glycosuria did not make its ap-

pearance when the animal was imprisoned with a companion. The same experiments made with an apathetic dog were without result.—GIBIER (*Le Bulletin Médical*.)

Ascites, Significance of.—

The appearance of abdominal or general dropsy is not necessarily indicative of malignant disease. When benign tumors persist for a long time they often induce a dropsical condition; and tuberculosis of the peritoneum is usually accompanied by this symptom. Dropsy is prone to occur in corpulent women in whom the presence of tuberculosis may not be suspected, and as a rule the absence of a distinct tumor, taken in connection with ascites means, *tuberculosis*. Cases in which malignant disease of the ovaries led to a diagnosis of ascites, have frequently brought patients to the surgeon, when the real facts were discovered. As a rule, dropsy can not be deemed in any sense pathognomonic of malignancy.—GRANDIN (before the Harvard Medical Society, Boston.)

Morphine in Urine.—

This alkaloid, or its salts, may be easily detected in the urine by the following process: Of the suspected urine, 600 cubic-centimetres are acidulated with hydrochloric acid, evaporated to one-sixth the bulk, and the residue set aside for twelve hours, when it is made alkaline with sodium carbonate, and again set aside for a like period. Next it is filtered, the precipitate washed with alkaline water, dried, powdered, extracted with lukewarm alcohol, and the solution again filtered and evaporated. Finally the residue is taken up with diluted sulphuric acid, and the usual tests for morphine applied.—*Pharmaceutische Post*.

Warts, Cause of.—

Having noticed the formation of a wart from the accidental introduction of a small spicule of glass in my own person, I am inclined to believe, when no bacteria are present, that these growths are due to mechanical irritation applied to the papillæ of the corium by the entrance of a foreign body, which leads to swelling of the tissues with a localized and increased formation of epidermis.—Note, that these excrescences are seen only upon the exposed portions of the body.—SCHAAL (*Archiv für Dermatologie und Syphilis*).



DETROIT MEDICAL JOURNAL

Original Articles.

TROPICAL DISEASES AND TROPICAL REMEDIES.

BY DR. T. P. PORTER.

Despite the great strides of exploration that the century just closed has witnessed, the acquaintance of science with the local herbal remedies employed by uncivilized races is still limited. This is all the more curious when we reflect that, in all probability, in this direction alone lies the secret of that immunity from, or means of resisting, deadly endemic diseases, which can alone render possible the general and permanent advance of European civilization into the world's tropical waste places. Perhaps the most astonishing thing about this ignorance is, that it is by no means due to oversight. On the contrary, explorers in tropical regions, both ancient and modern, have noted the effects of the strange and crude but marvellously potent drugs used by aboriginal medicine-men for the cure of such diseases; but for some reason these have never been investigated scientifically. Indeed, whilst our scientists frankly admit that even the famous poisons of the ancients are discounted in subtle efficacy by those decocted by the African or West Indian *obeah*-man or the wily descendant of the

Aztecs, they ignore the complimentary beneficent preparations which, if as frankly recognized and properly investigated, might add treasures to the Pharmacopœia which would array the medical practitioner against those obscure local diseases—specifically, the most dread malaria—that render the tropics fatal to the European.

In a recent article* giving some account of the effective treatment practiced by South American aboriginal tribes for malarial fever, the suggestion was made by the writer, that the subject was well worthy of the fullest scientific investigation. Since that article was written it has been announced that the British Colonial authorities, with the co-operation of the Royal Society, have instituted a Commission to study the subject of tropical malaria; and this suggests that some more general account of the native or so-called "bush" treatment for tropical diseases might prove of timely interest. Of course it is not to be supposed that any one individual should have been so fortunate (or, from the personal point of view, unfortunate!) as to be in a position to furnish the testimony of actual personal experience in many cases falling within

**Chambers' Journal.*

the lines of such an inquiry; and the proverbial reticence alike of the Indian *peiman* and the West Indian "bush-doctor" ever bars the way to deliberate investigation. But for the past twenty years I have been in close touch with the tropics, between the West Indian Islands and Central and South America, and in that time many remarkable facts and suggestive experiences have come within my knowledge that may with propriety be utilized. While, with one notable exception, the nature of the remedy, or specific, remains to be ascertained, the fact of the efficacy of native treatment is indicated in no uncertain manner.

The first question that suggests itself is: What is the nature of malaria, and what are its distinguishing characteristics?—that of its treatment being essentially secondary, albeit of paramount practical importance. Passing the more recondite phase of the inquiry, as to its remote origin and nature—which are theoretically referred to decayed vegetable matter developing a specific micro-organism,—malaria is thought to be a spontaneous exhalation of tropical regions generally, but of certain localities particularly, which can in any locality, however comparatively free it might be from the pestilent scourge, be produced in epidemic form by the upturning of the earth. This is frequently, perhaps usually, the result of clearing for cultivation, the cutting of roads through forest swamp regions, and so forth; but it is interesting to note that the surface disturbance occasioned by severe and continuous earthquake shocks has been known to produce the same effect. A remarkable case in point is that of the Virgin Islands, where, after a long series of earthquakes, beginning in 1867, which very considerably broke up the surface of the earth, and in some places poured up along the shores the marine-silt of ages, quite an obstinate epidemic of malarial fevers followed, although the little

islands bore the palm as the healthiest in the West Indies—one medical practitioner for a population of some six thousand having to be maintained by the Government. I have known of similar cases in the interior of Peru, Chili, and elsewhere in South America. But, beyond this general fact, little is known of the nature of the mysterious and terrible disease—or class of diseases—so-called, by which practically all lands within the tropical zone are rendered inimical to the life of the average European. The connection of mosquitoes with the spread of malarial fever has been very generally considered and discussed by others, hence I will not enlarge upon this topic.

Malaria essentially belongs to the febrile class of diseases; but, primarily at least, it exhibits itself in a variety of other peculiar forms besides fever ere finally investing the citadel of its victim's health—that is, there are certain effects or symptoms that are popularly referred to malaria which, like the proverbial auctioneer's summary are, "too numerous to specify." These comprise, among others, such trifling ailments as glandular and joint swellings (with, or usually without, pain), muscular contractions, cloudiness of vision, noises in the ears, nasal haemorrhage, and numerous other troubles, some of them being of a painful sort not infrequently mistaken for and treated as rheumatic. Either within my own experience or that of persons with whom I have been intimate, these premonitory signs of malarial infection have been found to be amenable to native "bush" treatment, no after developments having supervened. On the other hand, whilst some systems seem able to resist malaria beyond this point, it is the almost invariable experience, generally speaking, that when these symptoms are either neglected, or treated by the ordinary practicing physician according to orthodox methods, the febrile development of malaria subsequently occurs.

Such symptoms it is, however, to be noted, are not the inevitable precursors of malarial fever. Whilst they are usually present, they might not appear in certain cases; and in others, where they do appear, even if not treated, they sometimes disappear in a few days, or hours, or even minutes. I have known a new arrival rise in the morning with crippled fingers, stiff knees, and chimes clashing in his ears, to appear at breakfast after a cold "shower" entirely free from the trouble. Apparently it is only when the symptoms linger for several days that real, or rather immediate, danger is to be apprehended. Of course, prompt remedial measures would be in any case the path of safety. But for the most part such measures are unknown; and, even when they are known, some unreasoning prejudice—or shall we say skepticism?—militates against their use. This may be illustrated by the following:

I knew a fine, healthy young Englishman at Panama who went out to a certain establishment situate in a locality having a bad repute for malaria and yellow fever. In my own observation his two immediate predecessors had succumbed to those diseases. A short time after his arrival, glandular and knuckle swellings appeared, and I warned him of their probable significance; but they disappeared in few days, and he was heedless. Later on, more persistent and painful swellings occurred, when I again warned him of his danger, and even urged that he should consult a doctor, as he had probably contracted malaria. This he did not do; and within a week he was prostrated with fever that rapidly developed into "yellow jack," which was not epidemic at that time; and, although he had the best orthodox medical care, he succumbed. As the complement to this illustration: I have known and have heard of numerous other cases both of malaria and yellow fever that were treated in all stages with

wonderful success by native doctors, often after the resident European practitioners had given them over as hopeless.

A qualified medical man who, after having spent fifteen years among Indian tribes in Mexico and South America, studying with trained mind their crude therapeutics and chemically developing the agents, returned to civilization, and, practically discarding the old *materia medica*, scored signal successes in the treatment of tropical diseases, when the best European medical skill seemed at fault. For it is important that it should be remembered that at the period of which I am writing the great Panama Canal works were in full operation, that the whole isthmus was overcrowded with thousands of Europeans, and that the Canal Company maintained a medical staff, along with a central hospital establishment which cost nearly one million sterling. The conditions of contrast, therefore, were all that could be desired, and render the results noted as nearly decisive as could be reasonably expected. But other experiences within my knowledge, or that have come to me thoroughly authenticated, go farther in the direction of furnishing corroborative evidence of the efficacy of local treatment in tropical diseases.

I have known, in Trinidad and the tropical mainland of America, other than Guyana and the Panama isthmus, time and again, of cases of yellow fever being cured after the medical men in charge had frankly given up the patients as beyond human aid, as much on account of physical collapse as from the direct ravages of the disease. Yellow fever, however, or the symptomatic manifestations so called, is by no means so common in the West Indies and along the Spanish Main as is generally supposed to be the case. There, malaria proper, or those other manifestations classed under that dread but little understood generic term, prevail in vary-

ing intensity and in different localities throughout the year; and it is to these diseases that the native or "bush" remedies, of which I am more particularly treating, apply. In Trinidad, St. Lucia, Dominica, the French islands of Martinique and Guadeloupe, and (more than all) Hayti, the claims made for these remedies in cases where "doctor's medicine" has failed, are matters of common report; they have frequently come under my own observation, and have had the attention of many of the best writers on the West Indies. The same may be said of the decoctions of the African *fetich*-man and the South African *peiman*. Why they have not, long ere this, been scientifically investigated and translated into the *Pharmacopœia*, it is no part of my task to even venture to suggest. But it is certain that any attempt to solve the great problem presented by these tropical diseases must, eventually, be developed along these lines if it is to be practically successful. That seems to be the path indicated by Nature herself, since the agents are the crude products of common experience and not the finished result of elaborate chemical experiment.

A valuable sign-post, however, may be found in an investigation of the origin of these remedies. Whatever may be said of those used by the aboriginal tribes of inter-tropical America, there can be no reason to doubt that the West Indian "bush" medicines, or rather the knowledge of them, originated in Africa, having been brought over by the negro slaves as part and parcel—the best or only good feature—of their remarkable systems of *obeah* and *myalism*. Slowly, but let us hope surely—although that is "another story"—the gross and degrading superstition, with all its horific paraphernalia and *diablerie*, is falling away from these systems, at present surviving actively only in Hayti, Jamaica, and Trinidad, and to a less extent in some of the smaller islands; whilst the

beneficent part, that conversant with the use (as distinct from the abuse) of herbs, survives—destined, it may be, to partially revolutionize the theory and practice of tropical medicine.

That Nature revels in variety is a well established fact. It is proverbial that no two leaves in a forest exactly coincide any more than any two faces in a population. Yet it is equally true that Nature's consistency, amounting to uniformity, along certain well-defined lines, may be classed among those eternal verities that form the basis of all true scientific deduction. There is no occasion for surprise, therefore, when we find identical endemic diseases and similar vegetable growths furnishing specific antidotes or cures for them, bridging the wide Atlantic, and having their *locale* and habitat in Africa and America between the same parallels. Such is, in fact, the case; and it seems to be one of those merciful provisions of Providence that, somehow, are not so generally recognized by man as they ought to be. What is even less generally recognized, and which it is my purpose to here indicate, is that the aboriginal races of both continents along these zones have quite independently discovered, and practically applied, like remedies to like diseases.

Let us take as a concrete illustration of this, the native (African) West Indian and South American remedy for yellow fever, and which seems, so far, to be the best authenticated of the "bush" remedies. The remedy announced by Spence in his "Land of Bolivar" (1878) is identified as that used by the "Indian doctor" at Panama. Now, it is a most significant fact that this is precisely the same remedy—vervain (*Verbena officinalis*) and Guinea hen-weed (*Pentiveria alliacea*)—that is used for the same purpose, and with almost invariably the same satisfactory results, by the much discredited myal or "bush" doctors of Hayti and other West Indian Islands,

which fact I have been at pains to positively ascertain for the purposes of this article. The special significance of it is this: That whilst the heroine of Spence's "discovery," and the Panama specialist, beyond doubt obtained their prescription from the Indians of tropical America, the West Indians with equal certainty inherited their knowledge from their African ancestors.

Were it necessary to do so, instances of the efficacy of aboriginal therapeutics, in the treatment of almost all tropical diseases, might be multiplied, culled from the West Indies and the mainland from Mexico to Peru; only, so far as I am aware at least, the secrets of these remedies, always jealously guarded by their custodians, whether Afro-Caribbean *myal* doctor or Indian *peiman*, have in no case so happily come to light as chance has ordained in that of the yellow fever specific.* However, enough has been said, I hope, to indicate that in them we have a clue to the solution of the great problem that is well worth the following. It does indeed seem that the heart of the great tropical wilderness still holds many a precious secret of equal if not superior medicinal value to that which, in the long ago, "accident revealed to the fever-stricken Jesuit in dismal Peruvian wilds;" and if the inquiry now on foot can but secure them, we may venture to hope that ere long European science will be armed with the means provided by the Almighty Himself in the great laboratory of Nature for

dissipating that awful shadow of death which bars the fair and fertile lands of the tropics to Europeans.

Meanwhile, according to *The Lancet*, a determined and organized attempt has been made to give the British medical man at home adequate opportunities of studying tropical diseases. At Netley and Haslar there are well-equipped establishments for instruction; there is a School of Tropical Medicine, founded under the auspices of the Colonial Office, at Albert Dock; instruction is also given in tropical medicine at King's College, London, and in Liverpool, where a floor in the Royal Southern Hotel has been set apart for tropical cases. At the annual dinner of this hospital in 1898 Mr. Alfred L. Jones, a Liverpool citizen and West African merchant, made an offer of £350 a year to start a school in Liverpool for the study of tropical disease. Donations from other sources were promised. Major Ronald Ross, head of the Malaria-Mosquito Mission to West Africa, is one of the special lecturers. This gives opportunity for studying cases of tropical diseases in Great Britain.

Kingston, Jamaica, W. I.

DESIRE FIRST: DIET AFTERWARDS!

BY C. B. STOCKWELL, M. D.

Jack Spratt could eat no fat,
His wife could eat no lean.

This quotation from an old nursery ditty containing humor, rhythm and rhyme, ought not to escape oblivion because of these characteristics alone.—Reason is there as well as rhyme. "Mother Goose," at times, in jingling verse accentuates and preserves a truth liable to be overlooked or forgotten.

The constitution of our Nation may assert that "all men are born...equal," but we well know that the equality is not in length of bone or weight of flesh, not in intellect, moral sensibilities or affections; not in tastes, and not in capabilities—each man is

[Read before the North Eastern District Medical Society at Flint, Mich., Feb., 1901.]

*The medicine and therapeutics of primitive peoples is so closely interwoven with their real religion (or superstitions, if you like) that they are exceedingly chary about parting with the secrets appertaining thereto. They believe that the whites, in search of therapeutic information, are endeavoring to steal their religion or to secure evidence that will bring them within the clutches of the law or the church—and, of the two, in South and Central America, the latter has been the chief persecutor. In the English West Indies the practices of *obeah* are forbidden by law, but still carried on surreptitiously; and the same is true of *voudoo* rites in Louisiana.—Ed.]

an integer, but that integer is made up of myriads of fractions.

Nature is infinite in variety, and man, as a part of Nature, is complex, and not to be run in one mould nor to be fashioned after one model. Chinese feet may be confined by rigid bands until they are alike misshapen and deformed; the foreheads of Flathead Indians may all be crowded back to an idiot's angle; but Nature cries out against such perversions. Individuality will not follow fixed lines nor will it run in the same groove. My belief is not necessarily your belief; that which affects me must of necessity affect you in a similar way, is not an expression of truth, and therefore not tenable.

In portions of the field of medicine opinions are still standing for truth. Arbitrary rules are still governing in dietetics and therapeutics. In the opening of this century more prominence is being given to observation and what it teaches. Observation with deductions must enter more fully into these fields. Because an article of diet is suitable for work in a test-tube or a retort, it does not follow that it is suitable for all digestive viscera; and because it may be suitable to a majority of viscera, is no evidence it is therefore suitable to the minority. Food can not be given in "job lots" and a "fit guaranteed" any more than ready-made garments in a clothing store. A stomach is not the center of a solar system: It is dependent upon the whims and caprices of brain, heart, liver, kidneys and other organs. Environment, atmospheric conditions, barbarism and civilization change the natural cravings and vary the calls for stomachic functions.

At the meeting of the Michigan State Medical Society at Mackinaw Island, in July, of last year, arbitrary statements regarding food and diet were made by one of the medical profession from Chicago who is regarded (at least in certain circles) as an "authority." One of the statements was, that the only proper way to prepare oatmeal was according to the Scotch (?) method,—a method that was described as follows:

Cook the oat-meal thoroughly. Set it aside for seven days till it sours, then eat with the addition of skim milk, or with milk with very little cream and with no sugar.*

Personally, the writer can say that for many years his morning meals have consisted almost exclusively of oat-meal cooked on the same day on which it was eaten, and well dressed with cream and sugar; no diet could have been attended with better digestion. An opinion is worthy of consideration, but a dictatorial declaration not founded upon observation and cumulative evidence, can be received only with caution. The position of the Irish woman regarding her husband is not the position to be taken at the present day regarding what a man eats and drinks.—In response to her request of the dealer in gentlemen's furnishings for a "cravat" for her "ould man," and his request as to what kind of a cravat he would like, she replied: "It is not what he would like, but what I would put on him,—it's a corpse he is."

The first essential of a food or a diet is, that it shall be palatable, that there shall be that in one's surroundings to demand it, and that it likewise shall stimulate those secretions which will convert the same into tissue material and bodily heat. What may be palatable to one, may be most unpalatable to another; the portion of the globe in which one resides may decide this. Arctic cold and tropical heat demand different pabula. Abundance of cereals upon the plains, or abundance of marine life about an island, may establish diversity of tastes. Among the Esquimaux raw blubber is a delicacy: In certain parts of Siberia fish and reindeer meat, boiled or fried in train oil, is the usual meal,—fat is a great delicacy—raw, melted, fresh, or spoiled: In the tropics, however, rice and fruits are favorite articles of food, and garlic, pepper, ginger, and other strong spices are employed to give relish. These differences are the natural outgrowths of the marked climatic

*This will be news, indeed, to most Scotch people.—Ed.

variations. In Wilkes' U. S. Exploring Expedition, Volume IV., published some years ago, is to be found this statement regarding the Indian tribes of the West Coast of North America, and particularly of Oregon:

They all prefer their meat putrid. . . . Parts of the salmon they bury under the ground for two or three months to putrify, and the more it is decayed the greater delicacy they consider it.

Native Australians are said to have used as articles of food, a species of grub found in decayed wood, rats, mice, lizards, snakes and several varieties of moths: Some Hawaiian Islanders, at one time, preferred eating fish in the raw state, giving as a reason, that the flavor was lost in cooking: It is a matter of record that the Chinese have no prejudice whatever regarding food; they can derive nutrition from dogs, rats, mice, monkeys, snakes, sea slugs, rotten eggs, putrid fish and unhatched ducks and chickens: In Dahomey meat and vegetables mixed with palm oil and pepper constitute a favorite diet: And among the Hotentots "the entrails of cattle are looked upon as most exquisite eating."

In the foregoing we have a food list which, in many particulars, would be nauseating in the extreme to advanced civilized communities. Milk, which we consider an ideal food, is regarded by the Chinese with repugnance.* It is not so much the article of food in itself which effects good digestion and assimilation, as it is the relish or craving which creates the demand for it. Ox-tail soup to most is a great delicacy, but a few hairs of the tail in the finest ox-tail soup ever made would metamorphose that relish in a twinkle. A traveler of fifty years ago on the western plains tells of fattening upon delicious cakes made by the Indians out of a fine meal which they possessed. Loss of flesh would have resulted if the attempt to

eat them had been made after it was found this meal was made from pulverized, baked grass-hoppers.

Looking about now, in our own homes, a variety of tastes confront us: Pickles are relished by some but are poison to others. An Irish woman suffering from chronic nephritis, and supposed to be so far gone, that when called, nothing was suggested to me, but that I should make her "die easy," begged that she might have a "peekle." Considering her cravings, I said that she might have *one* pickle. "Oh it is not wan peekle I want, its lots of peekles." She got them and lived a year longer.

A patient with extensive tubercular ulceration of the bowels, and greatly distended abdomen, could find almost no food which her stomach could bear. Seeing roast pork on the table one day, she begged for it with tears, it was given in face of the protestations of her family. Two generous slices were given to her which were digested and assimilated better than anything she had taken for weeks. A brother physician* relates the case of a young lady, brought up in luxury, who while on her sick bed would be satisfied with nothing for two or three days but thin slices of raw salt-pork treated with lemon juice. Sauer kraut is the only thing that will appeal to certain pathological conditions, in certain cases where it is rarely used in health. Tea and coffee furnish good examples of effects produced that may be opposite: To some, their effects are soporific; to others, stimulating and exciting. The idiosyncracies following the use of medicines are well known and need not be enumerated here: Suffice it to mention that opium does not always produce sleep, but the opposite; that quinine may produce bulbous eruptions; that the coal-tar products may excite a violent dermatitis; that ipecac may produce asthmatic attacks if the stopper be removed from a bottle, where one who is susceptible may happen to be.

*It is a notorious fact, well known to naval officers and sea-faring people, that when milk is supplied to "Foreign Devils," for their tea, that it invariably is derived from a human, and not bovine, source.—Ed.

In closing, I wish once more to emphasize, the, to me, important fact, that back of all diet, be it the best in the world, must be considered the tastes, natural cravings, cravings due to unbalanced conditions, appetites and longings, for that which will satisfy the inner workings of that wonderfully complex machine—a human being.

Port Huron, Michigan.

TRACHOMA; TREATMENT BY SALICYLIC ACID.

BY W. F. STRANGWAYS, M. D.

A clerk, aged twenty-one years, on June 20th, 1898, sought aid for long standing trachoma with moderate lymphoid infiltration and hypertrophy of papillæ.

I succeeded in overcoming the infiltration by squeezing but, apparently, no measures undertaken—and the orthodox methods of treatment were strictly followed—had any influence upon the enlarged papillæ; I tried silver nitrate, copper sulphate, zinc sulphate, mercury bi-chloride, *lapis divinus*, taurine, and electricity, but after six months faithful effort, the papillæ stood out like small warts with their ocular surfaces rendered concave owing to pressure on the eye-ball—neither in number or size had they decreased,—and I was greatly discouraged.

The hypertrophied condition of the epithelium suggested the use of salicylic acid, hence I determined to give this drug a trial. Alcohol and glycerin, however, were the only practical solvents that occurred to me, and as the latter seemed to irritate the eye, I selected the former, reducing its strength to seventy per cent, and adding sufficient salicylic acid to make a saturated solution.

After cocainizing the conjunctivæ, I applied the preparation which, despite the local anesthetic, caused considerable smarting for a minute or two, and then a subjective feeling of stiffness in the lids.—Each lid was kept well everted until some little time had elapsed after subsidence of the smarting, and before allowing it to retract to normal, I flushed it with a solution of sodium bicarbonate. The following day the patient re-

ported his eyes were feeling better, and he was anxious to have the application repeated.

Before two weeks had passed by I was convinced the remedy was beneficial; and ere six months elapsed he was cured and dismissed.

After noting the beneficial results of the salicylic acid treatment in the foregoing, I decided to try it in a second case, a bartender by profession, aged thirty-eight, who applied to me on October 12th, of the same year. He too had marked lymphoid infiltration with moderate hypertrophy of the papillæ.

I employed the roller forceps and mild astringents, which eradicated the follicular trouble but left the papillary hypertrophy in practically the same condition as at the beginning. Here, too, six weeks treatment with salicylic acid, in solution as before, resulted in complete cure.

In March last, I had a third case, aged fourteen, in which I advised the use of roller forceps for the lymphoid infiltration, to which, however, the patient objected. I, however, applied the salicylic acid, and he was given a mixture to use at home of ten grains each of tannic acid and sodium bichlorate in one drachm of glycerin and diluted with one ounce of camphorated water. This case also attained a successful termination, though treatment did not extend over two months time.

Aside from the foregoing I have treated nine other cases of trachoma by the salicylic acid mixture: All had hypertrophy of the papillæ, and four lymphoid infiltration. In three of the latter I employed the roller forceps; and in all I used some of the ordinary remedies, either before, or in conjunction with, the salicylic acid, yet the results evidenced that to the latter the beneficial effects were chiefly due, and that this drug is a valuable addition to our armamentarium for treating this condition. Time and experience alone will determine its ultimate drawbacks, as well as its virtues. The suc-

cessful use of a remedy in twelve cases does not necessarily prove very much, yet the results were so decided that I feel justified in calling the attention of the profession thereto.

It is possible the alcohol exerts the chief curative influence; and it is also possible that the acid dissolved in glycerin may prove more effective than the solution employed by me; but such in my opinion is not at all apparent, and it is difficult to prevent the glycerin solution from attacking the cornea.

I would caution all, however, who may desire to try the foregoing remedy, not to employ it unless they are possessed of considerable skill in making applications to eyelids for, if the solution is allowed to touch the cornea it is more than likely to set up a traumatic keratitis. Again, it is too painful a remedy to use without first anaesthetizing the conjunctiva; and the lid must be retained in the everted condition until all sensation of smarting has disappeared, and should subsequently be flushed with a neutralizing solution, preferably of sodium bicarbonate; the swab, too, should not be applied while retaining an excess of the solution lest the latter should run over and flood the cornea.

Applications may be made every day in some cases, and every second day in others.

Flint, Michigan.

A New Ailment.—

A lady, whose maid accompanied her to a vegetarian restaurant in London, was soon the recipient of a protest. "But, Mary," she argued, "the food is palatable—you cleared your plate—and it is certainly wholesome. Why do you object?"

"It ain't that bad to taste, ma'am," responded Mary, firmly, "but, I don't call it wholesome—no, marm, not when they fill a body's plate with tomato and cabbage and parsnips and potato all at once, and gravy or fishball things without any fish in 'em, and goose things without any goose in 'em, and croquette things made of mixed up greens. Sure, ma'am it gives me confusion of the stomach."—*Morning Post* (London.)

Correspondence.

EXTRACTS FROM THE JOURNAL OF A NAVAL MEDICAL OFFICER.

(Continued.)

At Sea, October 14th.—Land has been in sight all day—that is as much as is visible through the clouds,—for the island of Hawaii, nearest to our track, is very high, the great volcano mountain, Mauna Loa, rearing its head 15,000 feet above the sea-level; it loomed high even when we first saw it, over ninety miles away. The island of Maui is now pretty near, and we expect to get to Honolulu, which is on the island of Oahu (nearly the furthest or most northwesterly of the chain) sometime to-morrow. It will be a great satisfaction, as thirty-two days, though a quick run, is quite long enough to be at sea continuously.

At Anchor, October 19th.—We are in Honolulu—"the Ismir of Polynesia," as the late Captain Henry A. Wise was wont to term it,—a thriving city of 4,000 residences and 23,000 souls (many of them Chinese) possessed of one of the most picturesque situations in the world. It lies spread about at the base of the beautiful Nuuana Valley upon a very gentle slope down to the very edge of the harbor. On either hand the shores are fringed with cocoa-nut palms, and all around, up hill and vale—save the burnt sides of Diamond Head and the Devil's Punch-Bowl, which form the entrance to the bay,—everything is covered with the deepest, most dense of verdure, actually as if it had been poured down from the heights above as a liquid flood of foliage, until there was not a spot on the leafy waves where another green branch could find a lurking place.

Running past the islands the scenery is very picturesque. Diamond Head is a matter of three miles from Honolulu, and the most satisfactory example of a crater that one can imagine. Fancy a conical mountain, rising isolated from the water's edge, about four-fifths of its hollow cone chopped off, and you have it.—All the volcanoes in these islands, those of Hawaii excepted, are now extinct; and the hills that form the interior, are curiously fluted or channeled down their bare, whitey- or red-brown sides, by old lava-streams.

Honolulu is a city of strangers, with shops, stores, and warehouses, handsome dwellings with verandahs and piazzas, plea-

santly shaded cottages with grass and flowers; and nice little straw huts in clusters by themselves for bachelors—all very cool to look at. The streets are level and fairly kept, but filled with dust, and natives wander about in bright-colored, loosely-fitting garments looking, for the most part, forlorn, diseased and miserable,—in marked contrast to the Chinese who generally appear fat, sleek, and prosperous. How many of the natives live is a mystery, as indolence is so much of a besetting sin as to have become, by popularity, almost a virtue; how or where they live no one seems to care, but I am informed they, at night, are sheltered in the most loathsome abodes of wretchedness and in the vilest dens of vice, in all save absolute want or destitution far below, in the moral scale, the worst hovels of iniquity in the great cities of the Old World or America.—It will be understood I am speaking of the native *ruck*,—the *flotsam* and *jetsam* of the city, so to speak.

Again, the wharves are ever crowded with miserable beings, natives predominating, with sprigs of coral, shells, calabashes and island ornaments in their hands, who look silently, wistfully and imploringly towards every passer-by, for importunities are rare, the people being too indolent by half for any exhibitions of vocal energy. Close by the quay is the market, where fat women, for a consideration, will swallow a full gallon of *poi-poi*, to show how the thing is done, and where native produce of all kinds, from fruits to sections of sugar cane, are sold at what seems, to the stranger, trifling prices, yet are fifty per cent higher than was the rule a dozen years since. Then, as a relief from the crowd of off-colored and diseased beings, there is the white reef seaward, vainly chafing and lashing the coral barrier; and the calm harbor, clustering with fine ships, some of the oleaginous order which includes sealers as well as whalers—the latter are comparatively rare of late years, since the sperm whale has been ruthlessly all but exterminated, yet the Pacific and Behring Sea fleets rendezvous here still,—fine men-of-war from various countries, the most conspicuous being three with the white ensign bearing the mingled crosses of St. George and St. Andrew which distinguishes the navy of Britain, though there are also one each with the French tri-color and the respective eagles of Germany and Russia, as well as one Japanese; then there are trim whale-boats darting hither and thither, and

business-like steam launches from the warships, and more graceful than all, Koa-wood canoes, with light frameworks of sticks and out-riggers to bear them upright, dancing over the blue wavelets; and last of all, despite their necessity and the demands of commerce, the little sooty, puffing, tug-boats that appear wholly out of harmony with their surroundings, and in every way incongruous.

There are agreeable walks and rides in every direction diverging from the city. The most fashionable is up the Nuuana Valley, and the road is broad and straight, lined on either side by handsome residences and country-homes placed back from the causeway, only half visible through the rich and sombre foliage.

Half-an-hour's walk takes one, by an easy ascent, away from the heat and dust of the city. The atmosphere is purer and cooler; the blue sea, shipping, reef, groves, fields, and the city itself are lying in miniature at one's feet! Go on, up, up, for six or seven miles, and suddenly the trade wind sweeps with heavy gusts around a sharp turn of the craggy verdant peaks, and you find yourself on a lofty terrace, and gazing through a great balconied window, cut like an embrasure, and formed by piles of rocks at the sides and base, while below is a frightful precipice, and beyond a glorious undulating landscape breathing in verdure and beauty, dotted here and there by native hamlets, whose bleached white thatchings are glistening in the sun, with herds of cattle upon the hillsides, chequered by bright patches under cultivation; while further still, the island is girdled about by high waves, breaking upon the rock-bound coast with the full force of the trades. This is the *Pali* with its beautiful view—a beauty which is recalled only faintly by one of Claude Lorraine's or Poussin's landscapes, and to which the French adjective *riant* alone seems appropriate. It was at this point, then unprovided with the modern winding road cut out of the hill leading to the plain below, that the "great" Kamehameha exterminated the remnant of the Oahu warriors after driving them up the Nuuana Valley, and their bones are said to lie in the scrub at the foot of the cliff to this day; but I was not tempted to hunt for them among the *Hau* trees, that are something like a combination of exaggerated scrub-oak and cactus. It was certainly a bad trap to be caught in, for even in that time, though there was a *possible* way over

the *Pali*, it was not a road suitable to such an emergency, and it is said several thousand warriors were engaged. This was Kamehameha's greatest victory, and the one that established his sovereignty over all the islands of this group.

The road that now exists down the *Pali* is worth mentioning, for to negotiate it is no small performance. It is a broad, well-paved or flagged track, zigzagging down the side of an almost perpendicular cliff; in parts cut out from the face, and in parts built out over, so to speak, so that, looking up from below to the last turn, you see a long face of neatly laid wall, like a terrace. Here and there in the most ticklish places there is a low wall, but the bushes springing up everywhere mask the edges. Wagons have been taken over this road, and most people who are used to riding and who can trust their horses, keep to the saddle going down, but it would seem rather a risky experiment, the slope being about the steepest practicable. This road was built not very long after missionary times, and I suppose has undergone continued repairs and improvements, and as at present it is the only means of communication between the two districts of Oahu, is much traveled. The old, notable path (which never could have been practicable for a horse), is thought to have gone down the very narrow and deep ravine just to the left of the road, but I was not tempted to try it.

A few hundred yards down this road a little thread of water, evidently from some spring on the top of the cliffs, comes dripping down the black perpendicular face of the wall of the rock, and at a convenient height above the ground, a sort of basin has been scooped out of the stone, making a little niche, in shape and size like a drinking fountain. This furnishes very good and cool drinking-water, and there I sat down after my very hot and dusty walk. A number of natives passed or met me, in twos or threes, the men stout and good natured looking fellows—quite different from the diseased mortals that haunt the city,—and some of them cow-boys who wore iron spurs as big as those affected by South Americans.

October 21st.—It is customary for strangers, who do not care to tempt the accommodation of the Hawaiian Hotel, which is far from being either quiet or home-like, to hire a small tenement expressly appropriated for this purpose; and as many of them are pleasant little domiciles, kept tolerably clean, free

from fleas and surrounded by adobe walls enclosing shrubbery and a few trees, this mode of living is far from disagreeable. I have taken one of these cottages for a few days, getting my meals at the British Club, which are not only well served and appetizing but have the reputation of being the best in the city. I rise early and go for a bath on the coral flats or shoals of the reef, then take a gallop before breakfast—all of which ensure a good appetite and better digestion. When the trade begins to blow, and the streets are filled with dust, I seek the veranda of the Club, or recline within my "castle" enjoying the cooling gusts that come down the Nuuana, and regarding the natives grouped about. These are mostly of the opposite sex—poor, miserable, shameless objects with unhealthy complexions, who lounge all day in the glaring sun, or clustered two and three together, suck *poi-poi* (pronounce *po-ee*—*po-ee*) smoke pipes, and chat in their soft idiom low and laughingly; and I may here say, they possess little of the grace and soft witchery of the rustic maidens of these islands, for these are "city ladies," residents of Honolulu, where there is more population, and consequently more want and far more vice.

Before the sun sinks for the day, there is but little wind, and walking or riding may then be indulged in with comfort and pleasure. There is a circle of agreeable society too; not alone with foreign merchants and consuls, but with a higher order of diplomatic agents who, although severed from their homes by thousands of leagues of water, still surround themselves with all the elegancies and enjoyments of social existence which they have known in their native lands.

Saturday is the Saturnalia of the Kanakas—as all native Polynesians are denominated. They revel on horseback; the streets, roads and plains are filled with them. It is surprising where they all spring from for, although they are an ambulating population, without local attachments, and go in boat loads from island to island of the group, and no doubt are packed very closely in their hovels in and around Honolulu, yet it is still a matter of wonderment where they come from. Hundreds of both sexes throng the pathways, and those more fortunate, who can hire horses, are riding and racing, leaping and kicking up all the noise and dust possible. The women bestride their steeds like men, with petticoats tucked snugly around

them, and sometimes wearing for head-gear as many as three hats of different colors, one within the other, like a nest of pill-boxes. The younger portion of the aristocracy, or those allied to royalty, are not much better than the common every-day herd, and they ride with headlong speed, and are not remarkable for taking less than three-fourths of the highway, to the great peril and inconvenience of more soberly mounted passengers. One pleasant evening an aristocratic sprig rode rudely against an Anglo-Saxon demoiselle, and without pausing to apologize for his brutality continued on, only to be overtaken by the escort of the lady, an English naval lieutenant, and treated to a taste of riding whip, soundly and well laid on; whereupon his "nigger highness" betook himself to temporary obscurity.

Neither men or women sit the horse gracefully or firmly, and it is a matter of hourly occurrence to see them take an aerial toss from the saddle. A certain kind of equestrian intoxication—possibly caused by "fire-water"—appears to possess them, and they gallop and prance about as long as their steeds have a leg to stand on.

I learn our officers are to be presented to the king on the morning of the 25th, and that a court ball at which everyone of note is to appear, is slated for the evening. This probably means curtailment of my free life ashore, and the stiffness of full dress uniforms, ceremonials, and all the rest of it. The ball is to be given in honor of an ex-prince and princess of the Bourbons, Neapolitans I fancy, but certainly either Italian or Austrian, whose *nom de voyage* is Count and Countess Bordi. Both are young and good looking, and though *dechus* have still, I fancy, a considerable heritage—manifestly enough to permit of extensive travel else they would not be here in this out-of-the-way corner of the globe. Of course the whole Hawaiian world of fashion is expected to attend the ball, including such foreigners as are of consequence.

October 25th: Very much P. M.—To-day precisely at twelve, we sallied out into the dusty streets in special full dress—chapau'd, sworded, belted, and laced up to the chin. The weather was warm too. A few moments walk carried us to the palace, and a very fair sort of palace it was as far as my limited knowledge of such structures goes. It is a large square-built villa, spaciously piazzaed and windowed, surrounded by pretty plantations of shrubbery and fruit-trees.

At the gateway a guard of Kanaka infantry presented arms, when the royal standard was unfurled from the flag-staff and floated to the breeze. Passing up a broad gravelled alley, we ascended a flight of steps to the piazza, and were again saluted by a double line of officers who were supposed to be "black-rods" in waiting. Entering the palace we found ourselves in a wide hall traversing the center of the building, with *salons* to the right and left. The king and his guests and *suite* not having arrived we had leisure to inspect the reception room, which was a spacious apartment with Venetian windows on three sides, opening to the piazza, and two doors leading to the hall. It was handsomely carpeted, but the furniture consisted only of a few plain mahogany chairs, with another of state surmounted by a crown; a round table in the center supported a few ornaments, and books, including a richly bound copy of the Scriptures in the native tongue, presented by that estimable philanthropist, Elizabeth Fry. The walls were hung with portraits in oils of the family of Kamehameha I.—dingy chiefs and their consorts, smiling intensely, with round saucer eyes and thick lips,—and several of the crowned heads and notables of Europe.

Time was only allowed us to take a rapid glance around the *salon*, when the approach of His Majesty was announced, and we hurried back to the hall. From the opposite side of the terrace appeared the regal cortège, brilliant in embroidery, gold-lace, nodding plumes, and swords at their sides.

The reception was a very simple but formal affair. Forming in line, the Admiral leading, we re-entered the *salon* and approached the throne. King Kalukaua was standing with courtiers ranged on either side. The admiral "backed his topsails and let go an anchor on the royal port beam. We were then telegraphed by name—shot ahead—hove-to abreast His Majesty—exchanged signals—filled away, and took position by order of sailing on the starboard bow!"—This was the way our "first Luff" described it.

After the presentation, we all wrote our names (together with those of absentees) in a book under the auspices of the court chamberlain. This made us of the "courtly," and it is understood that all, or some of us at least, are to be invited to all the court blow-outs.

King Kalakaua is a big fellow and in the United States would be taken for a negro

of not quite the blackest-black; and scandal says there is reason for this on the paternal side—but this makes not the slightest difference, for here, and generally I believe throughout the South Seas, rank comes entirely through the mother, apparently from a belief in the old adage of “A wise child,” etc.; thus there is no difficulty about authentic descent. It is certain that Kalakaua, in feature, though perhaps not in color, has more of the negro than other undoubted natives I saw at the reception, yet his face, though heavy, is not brutal or unintelligent, but on the whole rather prepossessing, and his court manner is good and dignified, though, not more so than Salomons of Hayti.

All the officers that could be spared from duty again gathered at the Palace at 9 p. m. for the ball, the King, Queen and Royal Family, along with the ex-regal or princely visitors, being the hosts. The King stood at one end of the throne room—where dancing was subsequently inaugurated,—on a sort of dais, to receive; and the reception consisted practically in a “march past” with “marching salute,” which was lucky for me, for just as I was going into the room a fellow brushed against me and almost unshipped one of my epaulets; as there was no possibility of stopping long enough to repair damages, I was obliged to make shift to keep it on somehow, which caused me to give, I fear, a very tame obeisance to the potentates.—Luckily, there was such a crowd that I was not specially conspicuous, and was soon across the hall in a window opening on the piazza, where I had myself set to rights again. There was an immense crowd, I do not know how many hundred people, all in full dress; and it was an interesting spectacle, after my own *fiasco*, to see the others parade, which was all done as quickly as possible, for the court chamberlain had his work well in hand; but even then, their Majesties and the Bourbons, must have been glad when able to cease the slight bobbing of heads which did duty as acknowledgment of the salutes. I have already mentioned the king: His consort is as big and quite as black, as himself, though about half a yard shorter, and may have been good looking once upon a time.

I despair of giving any idea in words, and on so short observation, of the real Hawaiian type, but it must be remembered that, in all these islands the chiefs are a much superior race to the common people. Perhaps

not a tenth of those present were natives, but many native officers were about, some of them really big, fine-looking men, and very strongly and well built. The Bourbon princess was in evening toilet, mostly white, and wore many diamonds—necklace, hair ornaments, bracelets, etc.; she was fair, and good looking enough for a princess. Her husband, who wore eye-glasses, was of medium height and also of rather fine appearance.—Both looked as if they might possess brains. The contrast between the representatives of the highest European society, and the dusky, even wild-looking entertainers, was interesting, and not so unfavorable to the latter as one might imagine. I saw several positively fine looking women, even beautiful, of mixed blood. After the reception was over, the royal party departed and dancing began. I did not essay to join in this exercise, a full uniform on a warm evening being not especially favorable to saltatory exercise, and, in fact, having seen all I came for, I took an early leave, and am at this moment, back at my domicile, half devoured by mosquitoes in spite of tobacco, and, as I must confess, my present costume is extremely scanty and light.

The very democratic character of Hawaiian society was evidenced by the presence at this ball of nearly everybody—who is white at least—of respectable character. Thus the mistresses of several boarding houses were there, and seemed as well off for partners as anyone else. While I write the music from the palace grounds sounds very plain, and apparently the guests have got to singing as well.

Honolulu, November 10th.—There is a library here that I have joined, which contains many books about these islands, one of which I am reading—“History of the Hawaiian Islands,” by James Jackson Jarves. It is really a fine work as regards early history, and is moreover very scarce, being out of print.

I am writing up my journal on the broad and shady veranda (one low story above the ground), of the British Club. One who has never visited this place can hardly form any idea of how completely buried in trees and shrubbery this city is, at least in the central part where there are residences; almost every house has its little grounds; even this Club, which is an unpretentious little building of wood, with a billiard room below and a little reading room above, has a yard (a hundred by one-hundred and twenty feet)

in which are many date and other palms, while shrubs and flowers leave hardly any room for herbage. Turkeys, hens and little chickens, the steward's property, I suppose, and scores of other trifles remind one at every turn of the missionary Yankee element still so conspicuous here. Though the sun is hot, there is a fine breeze, and as the trees shade the balcony all day, it is comfortable enough. On the verandah are a dozen great cane arm-chairs, but nobody but myself ever seems to come here in the day-time, except, now and then, a stray English officer, so I am quite undisturbed and could go to sleep for two hours and no one the wiser. All around are little cottages, only the roofs visible through the trees of their little yards, and in one someone is strumming on a piano.

One or two little points in all this scene of Arcadian felicity are open to criticism. Aside from the fact the streets are unpaved and very dusty in the strong breeze, the back premises of the Hawaiian hotel are rather slovenly when you get to them,—ill-smelling both from the bad drainage and from the fact the gas is made (from gasoline) on the spot; also the big date palms and other fine trees are whitewashed about twenty feet up their scaly trunks, which does not add to their beauty. Note, *en passant*, one coming to the hotel, the rates of which are \$2.00 per day, will perhaps do better, on account of the bad odor, to take rooms in the hotel itself, really two stories above the ground, than in the more romantic looking cottages with which the grounds are besprinkled—at least I should think so, though there is no sickness prevailing here.

I am told that all this beautiful shade of Honolulu is a matter of cultivation and irrigation, and that fifty or sixty years ago it was comparatively bare. One very common tree is a very large and handsome form of acacia, the same, I think, as the Algaroba which grows in Peru, and bears great pods which furnish food for both man and horse. Another tree that I recognize is the tamarind, the ripe fruit covering the ground in every direction; when bruised in water this fruit furnishes a refreshing acid drink, said to be sovereign in fevers.

Yesterday I drove out of town two or three miles to visit the settlement where are isolated those *suspected* of leprosy, and recent (proved) cases, prior to sending to Molokai, another small island of the group, and the leper colony proper. It was a for-

lorn looking place, having only been recently established and fenced in, and might have been on some salt marsh; but in a few years, as they are beginning to improve it, it may be as fine a place as any, for originally I suspect the city was little better.

December 8th.—The famous Captain Cook, whom we were taught to admire as children, turns out to have been rather a tough customer, and to have received no more than he deserved from the natives. One statement, the native account,—which is little known,—is that Cook himself at his first visit, as well as all the crew, freely accepted the offerings of women sent aboard under the impression that he was a god, and that he “plundered, abused and maltreated the natives” freely: In fact, so long as the apotheosis held good, he played the part of a genuine bully. The introduction of venereal disease, which has done more to depopulate the islands than anything else, certainly dates from his visit. It is also pretty clear that he concealed the fact he was previously acquainted with the existence and position (approximately) of this group in order to secure the credit of their discovery. Still, all this does not disprove the fact that he was an individual of ability, and upon the whole of average integrity; but comparing him with Vancouver, who was of the same period, and left a very different record here, it is apparent he was not above the average sea-faring man. As to old Kamehameha, the “First,” he was quite a man both in intelligence and character, and a famous fighter and giant in strength, and so expert that he could (and did), whenever he landed on the island, receive a volley of three spears thrown in quick succession from a distance of thirty yards; he had to catch the first one in his hand and with it ward off the other two; if any one had struck him it would have been killed outright. He was rather merciful in disposition, and in time of famine he not only would not plunder his people, but himself raised food by tillage. He was always in favor of cultivating commerce with the whites, and did not allow them to be ill used, when he might have captured their vessels, and his word was considered reliable.—“The Lonely One,” as he was termed, was quite the reverse of the ordinary run of natives, and altogether he might fairly be termed as great a man as Toussaint L’Overture among the negroes. One curious anecdote of Cook’s first visit: Iron had

been long known to the natives, though non-existent to the islands, and in consequence was very scarce and valuable. Of course the quantity around Cook's ships was a chief attraction. One of the chieftains, a professional robber, made a pun, which is perfectly translatable into English with a slight change of word, *hac* in Hawaiian signifying both iron or to rob or pilfer: "There is much *steel* there, *stealing* is my business, I will *steal* it," was not bad for a savage. However, he got shot in the attempt, which did not make the natives angry, since they recognized the justice of the thing according to their own ideas. It was only a short time after Kamehameha's death that the new king, acting under the advice of the queen Kauhulanu, and what is more extraordinary, of the High Priest, renounced their religion, so that there was really no religion here when the first missionaries arrived. I have read a number of books giving opposite views, but it seems clear that to the missionaries is due all the good ever done here, and none of the evil. They saved the nationality of the people, their language, and did all possible to prevent their extermination; on several occasions prevented the conquest and annexation by foreign powers. In a theological way the English Church is now perhaps at the top, having in 1862 sent out a real Bishop and solemnly taken them in; and now the royal family and most of the fashionable party belong to it. This "roiled" the Dissenters, who regarded it as poaching on their preserves; even the Catholics, who had gotten a foothold long before, but had not captured the court, did not stir them up so much. One delicious *morceau* of Hopkins' book is where he in perfect gravity raises some doubt as to the propriety of Dissenters doing any business whatever in the line of converting the heathen, since they are not regularly commissioned. However, he thinks on the whole they might, as the "sure-enough" ones had not come along yet, but evidently they should be shoved off when the latter got ready to take possession. This was very amusing.

The great Kamehameha was great in every sense, and in fact all these Hawaiians of the chief class were and still are fine big men. I am getting quite "up" in Hawaiian history, which is not very extensive, and can recommend Jarves as perhaps the best. Ka-meha-meha, as already remarked, means "The Lonely One," "Ka" being the article.—All Hawaiian names have some such signifi-

cance. The great Kamehameha was the beginning and the end of the only independent Hawaiian history, and the first king of the whole group. In 1779 he was present at Captain Cook's death, and was even then quite an independent chief under the King of Hawaii, the largest of the islands. A giant in size and strength, he was a great warrior, as all the Hawaiians were. From the peculiarly loose way of reckoning relationships according to our ideas—all nobility and rights being derived through the mother and not through the father,—Kamehameha seemed to have had to fight his reputed father and half brothers, so that at first, his exact degree of kinship is rather confusing to the reader. I do not know whether this would be called a sort of recognition of woman's rights, but if so it was the only one, though a chief was a chief whether male or female. Kamehameha I. died in 1819, having conquered the whole group and established some commercial relations with the whites. He was always a pagan.

The successor of Kamehameha I., Liholiho (Kamehameha II.) went to England and died there in 1824, and the government was really conducted by an obese lady given to most primitive costumes (Kahumanu)—(if that is the way to spell it, and I write from recollection) whose portrait, as well as that of her husband, (Kamehameha I.) hangs in the palace, as before remarked. It appears that ladies of this period were valued in proportion to their stoutness, and the fashion still obtains. She was the favorite of three or four wives and seems to have had a good deal of understanding. The second Kamehameha (and so I think were all who succeeded to the throne), was a hard drinker.

Queen Emma was the grand-daughter of one Young, an English sailor, who was saved by Kamehameha I. from some massacre, and taken into favor; she must have had a good deal of white blood in her. The present king, Kalakaua—the old Kamehameha blood having run out—is said to be half negro, and at first sight one accepts this as fact; yet it is stated that the woolly, or at least crispy hair is common among the natives, and if so he may be pure Hawaiian. It must be understood that according to the customs of the country it would make no sort of difference legally or otherwise. On comparing him with many other natives I can see no great difference in appearance.

There is no doubt that these islands had

been visited by the Spaniards in the sixteenth and seventeenth centuries, but they kept the fact dark, there being no gold or metals to attract them; and the languages of all the groups through Polynesia are enough alike to point to common origin, perhaps Malayan. Queen Emma was the wife of Kamehameha IV., and after the death of Lunalilo she succeeded Kamehameha V. When Kalakaua was elected king in 1874, there was a great riot in Honolulu, and men had to be landed from both American and English ships, and it is the fear of some *cmeute* or outbreak now, at the approaching election, that makes it necessary to keep a ship always here. A revolution was started a few months ago by one Wilcox, a half-breed white, and several people were killed. The leader was tried for treason, but the Hawaiian jury refused to convict, partly, it is said, because the king himself was privy to the conspiracy, if not a prime factor therein, the real object being to get rid of his ministry and secure one more to his taste; at present he has no political power, I believe.

Kalakaua is a big, stout, hard-drinking man, but of a good deal of ability and fairly educated. Though he makes himself common enough, being ready to drink and gamble with *le premier venu*, his manners are grand and dignified in public. I do not yet understand enough about Hawaiian politics to have any opinion of the merits of the present squabble, but here are the meaning of some of the names attached to individuals who appear in the political foreground: Keopuolani—the “gathering of the clouds of the heavens”; Kanikeaouli—“hanging in the blue sky”; Kaahumanu—the “feather mantle”; Kapiolani—“the captive of heaven”; Kalakaua—“the day of battle.”

(Continued.)

A VERY PROPER QUERY.

Editor DETROIT MEDICAL JOURNAL:

I have carefully read the initial copy of the DETROIT MEDICAL JOURNAL and find it nearly as you claim under the headings of “Salutatory” and “Announcement.” However, I also find two patent-medicines—“Eulixine,” made by a New York firm, and “Albasulphidi,”—very prominently advertised, despite the statement (page 21) that you “have never endeavored to foist patents or other non-legitimate supplies upon the medical profession.” Do you not think, in

order to adhere strictly to the pledges made in your “Announcement,” an explanation of the appearance of these two patent-medicine advertisements is in order?

We have too many cheap medical journals,—really monthly almanacs in character,—whose editors make, apparently, a special study of recommending quack or patent-medicine compounds, with whose advertisements their journals are well filled.

I feel satisfied that these advertisements are not (by any well-wisher of our profession) regarded as ornaments, but rather as disgraceful and dishonorable in *any* medical journal—especially if the dignity and honor of the profession are to be considered as worth preserving.

The thirty-two pages of reading matter in your Journal are without any faults,—purely medical or surgical;—They are perfectly clean and will satisfy every medical man.—I, therefore, wish you every success and will assist your timely and worthy enterprise.

JAMES S. SPRAGUE, M. D.
Sterling, Ontario, May 16th, 1901.

[Inasmuch as neither of the preparations mentioned are *secret*, either as to composition or mode of manufacture, the objection is manifestly erroneous and not well founded. The formulas in both instances have been repeatedly published, and even the mode of manufacture described. The titles have been adopted, simply to get rid of a cumbersome descriptive nomenclature.—Ed.]

Pneumonia.—

The death rate from this disease has remained unaltered for fifty years: The influenza bacillus thwarts our best efforts and carries on a guerilla warfare with the gay elusiveness of a De Wit. Nor can we cure a common cold.—SIR R. DOUGLAS-POWELL, (*The Lancet*, London.)

Phyllorubin (Leaf-Red.)—

This is a new derivative of chlorophyll which dissolves with a red hue in neutral solvents, but turns green in the presence of either acids or alkalies.—Marchlewski.

The Limits of Man's Ability.—

It is only now and then that a man learns something, but he forgets the whole day long.—*Exchange*.

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

DR. G. ARCHIE STOCKWELL, Editor.

—ISSUED BY—

THE J. F. HARTZ CO.,
Publishers, Booksellers and Importers.

NOTE.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, at 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., JULY, 1901.

Editorial.

AN APOLOGY.

We herewith tender our regrets and most sincere apologies, both to our readers and to an estimable contributor, for an error that appeared in the last (June) issue of this Journal.

The interesting and valuable paper on Ectopic Pregnancy, from the pen of Doctor H. W. Longyear, was illustrated by five cuts and the descriptive matter in connection with Figures 4 and 5 transposed—that of the former was made to do duty with the latter, and *vice versa*.

When the proofs came into the editorial office, the mistake was made apparent, and the necessary corrections indicated; but through some *contretemps*—gross carelessness, rather—the corrections were overlooked, and no revise furnished, and the entire edition run off, perpetrating the error.

Words are inadequate to express our chagrin. We can only offer the assurance that the like will not again occur.

PSEUDO SCIENCE AND DISEASE PROPHYLAXIS.

An item is going the rounds of the lay press to the effect that "a chemist at the Department of Agriculture in Washington has made close study of the rela-

tionship between typhoid fever (and other germ diseases) and the consumption of raw vegetables." The conclusion announced is, that the prevalence of such maladies, at certain seasons of the year, "may often be traced to eating vegetables that were grown in or near the centers of population on land fertilized by sewage and other city refuse." This, to the "chemist" in question, seems a danger of sufficient importance to "warrant the sterilization of all such fertilizers by oil of vitriol, or of the vegetables themselves with tartaric acid." The public is further informed that a "three per cent. solution" of the latter acid will "kill any disease germ" and that, "even if a little should remain after rinsing, it is neither unpleasant to the taste or dangerous to the public health."

It is somewhat surprising, to say the least, that any chemist of sufficient ability to be connected with the Department of Agriculture—except perhaps for political reasons,—should thus manifest utter ignorance of the values of antiseptics. While oil of vitriol is sufficiently active, its application to certain fertilizers would certainly deprive them of their value; and again, the application of tartaric acid, which stands very low in the antiseptic scale, would in the majority of instances serve no practical purpose—and a "three per cent. solution," far from proving inimical to the ordinary bacterium, in many instances will favor, rather, the propagation and development of certain germs.

To parody an old saw we might say "Put not your faith in chemists!" Nevertheless, the foregoing, to the mind of the average laymen, embodies sufficient plausibility (along with a glimmering of sense) to carry conviction; but the average individual, including the "chemist," cannot be expected to know that some acids, those

of vegetable origin especially, are not germicides.

No matter how much truth or falsity there may be in this statement as regards "typhoid fever and other diseases," it is, to say the least, suggestive. It evidences the tendency on the part of those alien to the exact sciences, to invade the territory of pathology with which they are wholly unfamiliar; likewise the proneness of the laity to accept decisions regarding prophylaxis and therapeutics, from any one arrogating to himself a scientific title, regardless of evidence of special education or training. The magical name of *chemist*, in the vast majority of instances, is deemed ample to cover any deficiencies, more particularly since it is pretty well known that the theories of Pasteur (who was nothing but a chemist pure and simple) were for the most part blindly accepted by a considerable portion of the medical profession, and that too in the face of the fact the French *savant* was devoid of the special training essential to a correct understanding of pathological problems: at the same time the masses are still not aware of the number and volume of Pasteur's shortcomings, nor that with his death, hydrophobia has practically died out in Paris.

This same precise cause is responsible for the many attempts on the part of non-medical men to enter pathologic and therapeutic fields without even discovering the A-B-C-principles of these branches. There is a vast gulf separating pseudo-science fostered and upheld by *bombast*, and true science as established upon the pedestal of thorough and special education.

SUICIDE AMONG ANIMALS.

At regular cycles this query comes up for discussion in both the scientific and lay

press, and despite the decisions rendered, hydra-like, rears its head and asserts itself anew on the slightest provocation.

The majority of evidence, negative and affirmative (especially the former), appears to largely emanate from newspaper writers who manifest no familiarity with comparative zoölogy or neurology, or from that ilk that arrogates to itself the title "scientific" but which really demands this word should be prefixed by the term *pseudo*: It is also notable that in both classes the conclusion is arrived at by means of a theological bias that demands acceptance of the theory that no material changes in the human and animal races have accrued through lapse of time, and that all things exist exactly as when "originally created"; likewise, that man being in the "image of his maker" he is "too good to live and too good to die."

A decade since the question of suicide and its relative existence and practice among our "poorer relations" was very thoroughly entered upon by the Medico-Legal Society of New York, and the concensus of opinion expressed was decidedly affirmative: Indeed, how any other decision could be arrived at by a body that draws more than one-half its membership from those supposedly familiar with the workings of the laws of life as upheld by modern physiological teaching—to say nothing of evolution,—is beyond the ken of any reasonable mind. Comparative anatomy and physiology teach that man is but a higher type of animal, and, perhaps, by no means the highest obtaining to our globe, except as manifested through his own egoism and conceit; and that his mental and nerve development, when judged by the standard of relative bulk, places him decidedly at disadvantage when compared with some forms of life, notably the insect tribes, beside whom even his physical prowess likewise falls.

Since all forms of animality are endowed, in greater or less degree, with the same at-

tributes and much the same habits that obtain to ourselves, it is just to suppose they are animated and governed by like sensations, causes and reasons.—Affection, deceit, hatred, grief, gratitude, murder and robbery are common to all, and tend to precisely the same results, even *felo de se*.

What leads certain insects and reptiles in captivity or in danger, when hope has been exhausted, to encompass their own destruction? If this is not suicide, what is it? Why does the *Crotalus* when surrounded by a ring of fire seek to escape the tortures entailed by the latter by sinking its poison fangs into its own flesh if it is not through the same desire that obtains to the human race, under parallel conditions, and that lead to the employment of anaesthetics and narcotics. Certainly it is not beyond the bounds of reason to presume that animality, endowed with like and oftentimes more sensitive nerve organization than ourselves, should in equal degree seek to mitigate the sufferings entailed by the inevitable.

Many authentic cases of suicide in dogs, monkeys, birds, horses, *et al* have been gathered,—cases that admit of not even the shadow of doubt. Some years since the editor of this Journal collated a number of such, which were published in *Chamber's Journal*, Edinburgh, "The Field," of London, and "Forest Stream," of New York. In 1877 he witnessed the suicide of a Yorkshire terrier under circumstances that were most convincing, the immediate cause being jealousy of a newly arrived baby in the family; and a few weeks later a St. Bernard, that was greatly attached to the terrier, deliberately suicided in the same precise way, apparently led thereto by grief for the loss of his little friend.

* * * * *

An amusing episode occurred at the session of the Medical Legal Society before mentioned: Doctor Newton, who upheld the possibilities of *felo de se* in the animal

kingdom, as differentiated from the human race, cited the case of a creature:

Peculiar to Northern Europe, which resembles in some respects the beaver and the otter, and that has been observed every nineteen years to go to the water's edge, and there separate into two groups, one of which deliberately committed suicide by plunging into the flood.

There is no doubt but Doctor Newton referred to the lemming, which, however, has no nearer relationship to the beaver and otter than the common rat, to which latter it is, in fact, closely allied. The suicide of droves of lemmings at the conclusion of definite cycles, despite the frequency with which such obtain in popular school-books and works of natural history, has no better foundation than the writings of Olaus Magnus and Pontoppidan, both of whom were more remarkable (despite the ecclesiastical preferment of the former) for ignorance and mendacity than for scientific knowledge and accuracy of observation. Only recently, comparatively, the well known naturalist, Brehm, spent three years in Norway and Lapland studying the ways of lemmings and unravelling the mystery supposed to surround these rodents; and despite all efforts, not even the proverbially "oldest inhabitant" had ever heard of such extraordinary migrations and suicides as have been attributed to this little creature—a form of life which, by the way, is *not* peculiar to the Eastern Hemisphere since it likewise obtains to the "Barren Grounds" of North America, and is not even unknown to Greenland.

OIL OF CADE.

This preparation, which has been highly esteemed in the past, seems to have gone entirely out of market. There is no longer any such thing as true *oleum juniperi ligni seu empyreumaticum*, which is a tarry product obtained by dry distillation of the wood of *Juniperus oxycedrus*.

The oil of cade at present in market is simply a distillation (terebinthinate) product derived from chips and twigs of one of the

American junipers, usually the so-called "white" cedar (*Juniperus communis*) sometimes mixed with a little oil of juniper berries.

The true oil is manufactured only at Aix-la-Chapelle, consequently a certified, imported product is demanded when this drug is to be used. This is at once a stimulant and detergent, when applied externally; given internally it is stimulant, diuretic and anthelmintic. It is rarely prescribed except as an external application in chronic skin diseases, and for this purpose, abroad, a soap is manufactured from the oil that is very effective, especially in chronic eczema, leprosy, etc.

Doctor McCall Anderson recommends that oil of cade (as well as all other tarry applications) should not be used in eczema until the declining stage has been reached—when the itching and infiltration have moderated. It should be firmly rubbed over the eruption thrice daily by means of a piece of flannel and allowed to dry on; then washed off with soft-, or petroleum soap: The following is an excellent combination: Oil of cade, soft soap, rectified spirit, of each one ounce; oil of lavender ninety minims.—A little to be well rubbed into the eruption night and morning, and washed off before re-application.

EDITORIAL NOTES.

Nursing Sore Mouth (Stomatitis Matterni).—

Sodium biborate	60 grains
Tincture benzoin	30 minimis
Distilled water	180 minimis
Sugar syrup	6 drachms

Apply five or six times daily. Or,—

Salicylic acid	30 grains
Alcohol	180 minimis
Glycerin	6 drachms

If the case is grave, use internally:

Chlorate of potash ...	15 grains
Syrup of raspberry ..	150 minimis
Water	3 ounces

A teaspoonful every second hour.

—*Journal des Praticiens.*

Superior to the foregoing is the internal administration of iodide of potassium or

sodium, carried to saturation. One of the best diagnostic points is nasal haemorrhage, always present in greater or less degree, and which leaves no stain upon the handkerchief. For topical application the following has been found most satisfactory:

Sodium biborate	2 parts
Powdered myrrh	2 parts
Burnt alum	1 part
Sugar	4 parts
Potassium chlorate	1 part

A little to be taken in the mouth at frequent intervals and allowed to slowly dissolve.

The Doyen of Lady Doctors.—

The honor of being the first woman, not only to attend medical lectures, but to graduate after a complete medical curriculum, belongs to Doctor Elizabeth Blackwell, who is now in her eighty-first year. To the efforts of this lady may be largely ascribed the measures taken to admit her sex to the advantages of medical education, not alone in the United States, but abroad.

Doctor Blackwell, though retired, is said to be as young in appearance, as bright mentally and as strong physically, as most women twenty years younger. Even now she is deemed "brilliantly intellectual," and gives promise of surviving for many years. Her forenoons are strictly taken up with literary labors, but the latter part of the day is devoted to social duties—visiting or receiving her friends.

Eccentric Bequest.—

A few years since the French Academy of Sciences received a legacy from a lady who held the belief (with a great many others), that the Universe contains other worlds than ours that are populated with beings like ourselves. This bequest embodies the handsome sum of \$20,000, which is to be awarded to the first person who succeeds in establishing communication with one of our neighbors in space.—For some

unexplained reason the planet Mars is excepted.

After considerable hesitation the Academy has decided to accept this conditional gift. And as the discovery of a means of communication is expected to be long delayed—unless, indeed, Marconi with his wireless system of telegraphy, or Tesla with his oscillatory currents of electricity, quickly solve the problem,—the interest on the money is to be devoted, every five years, to some work which will help the progress of Astronomy; so that after all, the eccentric bequest may be productive of some good.

Black Eye for Michigan's University.—

According to Doctor Gardner T. Swartz of Providence (*Bulletin American Academy of Medicine*, April, 1901, page 289) all graduates of the Ann Arbor school are excluded from examination, let alone registration, by the Rhode Island State Board. The *raison d'être* is claimed to be, the lack of clinical advantages presented by this institution.

New Use For Guaiacol.—

A French writer declares most cases of varicocele, varix hydrocele, and pleuritic effusion, may be cured by local application of guaiacol. The affected part is bandaged with a solution of the drug, more or less concentrated according to tolerance, and covered with rubber tissue, the whole being overlaid by wadding.

Homœopathy.—

With the frankness characteristic of the man, Doctor F. W. Parkham, retiring President of the Louisiana State Medical Society, made the following pertinent observation regarding one wing of the medical fraternity:

"Give her the benediction as she goes, and

thanks for her assistance in the battle against poly-pharmacy which is still being waged by the adherents of scientific medicine. Homœopathy has served its purpose; it has enabled us to observe the natural history of disease!"

A Curious Mummy.—

A most interesting addition has recently been made to the collection of mummies which form such an attractive (as well as weird) feature of the Egyptian Galleries of the British Museum. This is the body of a man (with a lock of fair hair still remaining on the scalp) curled up in an oval pit, which latter is an exact reproduction of the mortuary receptacle in which the specimen was found. By experts this is believed to be the oldest mummy known, as it was taken from a neolithic grave where it was surrounded by flints and pottery.

The hands and feet of this old dweller on the banks of the Nile are small, and the intellectual characteristics presented by the head warrant the assumption that this individual is representative of a superior race.

The body is supposed to be that of an aborigine of Egypt. The Nile delta and contiguous country, it appears, was conquered by Asiatic invaders somewhere about 8,000 B. C. The natives subsequently intermingled with their conquerors, and thus the foundation was laid of the race known as the Egyptians.

Renal Colic.—

In the *Hahnemanian Advocate* Doctor Mills claims to have relieved five cases of renal colic by the administration of calcarea carbonate.

Nitroglycerin.—

It is claimed that toleration to an almost marvelous degree may be attained by the persistent use of this drug.

Items and News.

Benzine Explosions.

Of late several cases of explosion with serious consequences have been reported in this country and in Europe from the employment of benzine or gasoline, as a cleansing agent. The practice is gaining ground of using gasoline for cleansing silk garments, as well as the hair and scalp. It is a well-established fact that friction, especially of the hair, wool and silk, is apt to engender a spark in petroleum-ether, while in a closed room the vapors also may creep along the floor to a stove or lamp in the same or an adjoining apartment, and then communicate the flame backward to their source, in each case causing inflammation and, in a closed room, explosion. People cannot too frequently and urgently be warned against the dangers of benzine, and especially that such operations must be performed in the open air only and then with the smallest amounts possible.—*Western Druggist.*

Chinese Drugs.—

The employés in the office of the appraiser of customs were busy examining a shipment of Chinese medicines, and the place smelled like a fertilizer factory. There were the usual number of dried snakes, the looks of which would be certain to kill or cure any intelligent patient. There were also a number of plump lizards, spitted on rods and expanded with slips of bamboo till they resembled tennis *raquetts*; a lot of "sea-horses," a long, slender fish, with a head like a horse and a prehensile tail; bundles of centipedes flattened out and pasted on sticks; cans full of preserved polliwogs and angle-worms; and many other curious panaceas, each of which smelled worse than the other. There were pills as large as prunes, handsomely decorated; roots and "yarbs" of many kinds, which would paralyze a Quaker doctor; and boxes and bottles of unknown mixtures which would paralyze anybody. The forty separate and distinct smells of the town of Cologne are nothing as compared to the odors arising from about \$100.00 worth of Chinese medicine, which made some of the men handling the stuff sick. Foul smell seems to be a requisite in most medicines, and if the beneficial effects of any one are proportionate to its odor, the remedies of the Chinese should be the best in the world.”—*Portland Oregonian.*

Cardiac and Respiratory Failure, Electricity in.—

Direct electrization of the pneumogastric calls into activity the physiological function of these nerves.—In the one condition, the heart's action is depressed, in the other, respiration is accelerated and strengthened:

Per-cutaneous applications in therapeutic doses, especially with the Faradic current, altogether fail to affect the pneumogastric appreciably, while the same method readily affects the respiration through the phrenic nerve. In respiratory failure, therefore, whether due to opium, aconite, or in apparent death from drowning, electrization is a powerful antidote.

In heart failure, especially from chloroform narcosis, the Faradic current is likewise a legitimate method of resuscitation, by keeping up the respiration without depressing the circulation.—*ROCKWELL (Medical Record.)*

Depths of the Ocean.—

By slow degrees we are getting to know the contour of the sea-bottom almost as well as that of the surface of the land, but it cannot be said that we have found the deepest water of the earth. Depths of 15,000 to 27,360 feet have been reached in the north Atlantic from time to time, and one of 27,930 feet was discovered in the north Pacific off the eastern coast of Japan, where there is a remarkable gulf or depression. All these measurements are, however, outstripped by one taken south of the Friendly Isles, in the south Pacific, by H. M. S. *Penguin*. A depth of 29,400 feet had been marked when the sounding wire gave out before the lead had reached the bottom.—*Public Opinion.*

Ancient Silver Amalgam.—

The oldest known silver amalgam is found at Sala, Sweden. Two distinct varieties have been analyzed, corresponding to the formulas Ag^2Hg^3 and Ag^5Hg^6 . The gold amalgams of Columbia and California correspond to the formula Au^2Hg^3 .—*British and Colonial Druggist.*

Castor Oil, Odorless.—

It is said this drug can be rendered practically inodorous by washing with hot water and allowing the mixture to stand sufficiently long for the oil and water to separate completely.—*Medical Age.*

Drug Stores in Germany.—

Recent statistics show that there are now 5,459 "Apotheken" in the whole of Germany, an increase of sixty-eight over previous years. Prussia naturally stands first with 3,118; Bavaria comes next with 681; then Saxony with 297, Wurtemburg 278, Alsace-Lorraine 239, Baden 210, and Hessen 122, while there are about 100 in the minor provinces. The smallest number are to be found in Schomburg-Lippe with five, and Reuss with four. In the city of Berlin there are 162, two more than last year.—*Chemist and Druggist.*

Bacteria, Resistance of, to Cold.—

Ravenel has experimented with anthrax spores, diphtheria cultures, typhoid fever cultures, and *Bacillus prodigiosus*, to test their virulence in extreme degrees of cold. He immersed these germs in liquid air at a temperature of minus 312 degrees Fahr., for a period varying from one minute to one hour, and in the case of some, to several hours, yet in no case were the germs destroyed, nor could any inhibition even be detected.—*Red Cross Notes.*

Distinctions Without Difference.—

Yes, John, "celialgia" is very learned, but "bellyache" will be better understood; as regards "cerevisia" you had better ask for "beer" if you are especially thirsty.—*Homœopathic Recorder.*

Throat Examination.—

Patients who gag under the touch of even a wire tongue-depressor, may be made to open their throats by looking at them, themselves, in a hand-glass, when the physician can simultaneously obtain an unobstructed view.—*Exchange.*

Hints for Nurses.—

One of the frequent objections made by patients to nurses is that they have bad breaths. If they cannot keep their breaths sweet, let them be reminded not to breathe on the patient. This is the least that they can do to make amends for a foul breath.—*Southern Clinic.*

An Obstetric Hint.—

By not "rupturing the membranes as soon as dilatation is complete" (as the books say), the water in the sac makes an efficient opening-wedge shortening the second stage of labor.—*Exchange.*

Book Reviews.

The Curious Case of General Delaney Smythe.
By Lieutenant-Colonel W. H. Gardner, M. D. Cloth, 16 mo., pp. 204. Price, \$1.00. The Abbey Press, New York.

A most interesting work, the plot being based upon certain psychic phenomena including clairvoyance, upon which everything turns. Probably no practitioner of medicine possessed of large experience has not, at one time or another, encountered cases of double consciousness, of thought transference, or clairvoyance, and been puzzled thereby—all of which await definite pathological elucidation. That these conditions exist is not to be gainsaid. The writer has frequently observed these phenomena in persons who made not the least pretension to occultism, spiritualism, or allied manifestations, invariably, however, when suffering from disordered nervous or mental conditions. Usually brain anaemia has been present, and with the lapse of this condition the occult faculty disappeared. Grief appears to be a profound factor in many instances.

Those at all interested in the study of such phenomena should not fail to peruse Doctor Gardner's book, despite the fact it is a work of fiction but one, nevertheless, founded on facts.

There is not a dull line from beginning to finish. It would spoil the pleasure of the reader to anticipate the plot and its *motif* by giving the volume a comprehensive and explanatory review.

The Mechanics of Surgery. By Charles Truax. Cloth, 8 vo., pp. 1,024. Price, \$3.00. Truax, Greene & Co., Chicago.

This monumental volume does not presume to offer advice as to when or how surgical operations are to be performed, and all ætiological and pathological discussions are avoided, as well as views on prognosis and known mechanical therapeutics. The aim is, solely, to illustrate and describe such mechanical appliances as modern research and, experience have proved to be most valuable or suitable to the purposes for which they are designed. At the same time the volume is very far from being a mere catalogue, as it comprises detailed descriptions, illustrations, and lists of instruments, appliances, furniture, etc., necessary to modern surgery and the surgical art. The volume is a valuable one, and practically an indispensable necessity to every surgeon's library.

Therapeutic Brevities.

Hæmorrhoids.—Wash out the rectum with a two per cent. solution of carbolic acid or a one per cent. of creolin. Then, after drying the hæmorrhoids with absorbent cotton, apply two or three times daily a suppository, each to contain: Chrysarobin, 3-10 grain; extract belladonna, 1-7 grain; cacao butter and glycerin q. s. to make 30 grains.

If there is troublesome bleeding, tannin may likewise be employed. The most severe cases may be thoroughly cured after employing this remedy for three or four days; the pain and bleeding will disappear and the piles shrivel up. Twenty-two cases have been thus successfully treated.—KOSOBUDSKJ.

Ethyl Chloride Narcosis.—A certain degree of concentration is necessary, and whatever mask be employed, it must be impervious to air. Equally reliable with a mask is a tin or vulcanite funnel bent to conform to the face, with a notch to correspond to the bridge of the nose. Into the neck of the funnel a piece of gauze is inserted, and a window may be cut into the wall to act as an outlet; the drug may be sprayed upon cotton placed in the receptacle.

An improvement is to spray the drug intermittently, with short remissions, as by this procedure the frosted breath will not accumulate in the apparatus in quantities sufficient to interfere with inhalation.

The breathing is perfectly natural, though in the narcotic stage it becomes somewhat stertorous; at times the usual attention has to be given to the falling back of the tongue. The pulse becomes somewhat accelerated and remains so throughout, but no falling in pressure is appreciable. Ethyl chloride narcosis has been kept up for forty minutes; in one instance, in a child of fifteen months, fifty minutes. The awakening is just short of being instantaneous; and, unless food has been ingested immediately prior to narcosis, no vomiting ensues or other unpleasant after-effects.—WARE (*Medical Record*.)

Disinfectants.—Sulphur dioxide presents a low grade of efficiency; it is fatal to dyed fabrics and impracticable for general application:

Mercury bi-chloride is to be recommend-

ed as a handy and efficient means of disinfecting washable materials:

Formaldehyde is an agent of great power and penetration and practically harmless as regards colors and fabrics. Sprinkling with a twenty per cent. solution, and keeping in close containers for twenty-four hours, enables one to dispose of woolen and other wearing apparel that can not suitably or conveniently be treated to bi-chloride.

Lime chloride is by long odds the best disinfectant for excreta, closets, vaults, drains, etc.:

Incineration is the only satisfactory method of disposing of certain substances, especially if of no intrinsic value, such as discarded dressings, cloths stained with dejecta, etc.—ARCHINARD (*New Orleans Medical and Surgical Journal*).

Fractures, Compound.—It is not good surgery to attempt to replace the ends of fracture bones simply by extension and placing in a splint.

Make a free and deep incision exposing the fractured ends of the bone, cleanse the wound, care for the torn tissues, remove all foreign substance, and approximate accurately the fractured ends, and hold them in position by wiring or nailing; in every case of oblique fracture I wire the ends with heavy silver-suture material.—MARIARTA (*American Medicine*.)

Iodomuth.—This is a new preparation of bismuth containing twenty-five per cent. of iodine, and possessed of no unpleasant odor; it is clean, effective, practical, and moreover haemostatic. Available chiefly as a dressing for wounds, discharging surfaces, etc., replacing aristol and iodoform.—SLOAN (*Philadelphia Medical Journal*.)

Migraine.—Chronic sick-headaches are readily relieved by blue flag (*Iris versicolor*) or the concentration, Irisin. This remedy is most effective when there is a sensation as if the roof of the mouth is covered with cold grease.—PERAUD.

Phthisis, Cough of.—Fifteen to twenty drops of a mixture of equal parts terebene and beechwood creosote, taken by inhalation from a hot sponge several times daily, will usually afford prompt relief.—*Illustrated Medical Journal*.

The Crisis of Development.—

The young physician in his first months or years of comparative leisure should take up child study—the scientific observation of children. Such will give a more thorough grasp of the meaning of the developmental period of life, with its peculiar susceptibility to damage, not only throughout, but accentuated at special crises; will throw light on the after effects of the specific and other diseases in childhood; will give greater precision and force to the physician's directions as to the general hygiene of the growing child, hours of work, play and sleep. It will be a guiding influence on all therapeutic measures adopted in cases which development is not preceding normally; would introduce system into the estimation of the defects of backward children, and supply clews to the meaning of the behavior of the precocious. It will, when previous personal or family history supply facts, justify making predictions as to the future physical and mental development of particular children; and give opportunities of instituting preventive measures against developmental failure of body and mind.—JORDAN (*Birmingham Medical Review.*)

Sugar, Dietetic Value of.—The advantages of sugar as an article of diet, apart from its palatability, resides in the ease with which it is digested and absorbed, the completeness with which it is consumed in the economy, and its potentiality in generating heat and energy and in repairing waste, as demonstrated both experimentally and practically. It may prove of value as a food in cases in which the nutrition is impaired, especially in the presence of simple marasmus, anaemia, tuberculosis, and the state of malnutrition in those who inherit a predisposition to tuberculosis; during convalescence from various diseases; also in growing boys and girls, and in the aged. It should not, if pure, injure the teeth, provided hygiene of the mouth is observed. Its use is contraindicated in the presence of diabetes, and in the glycosuria of gout in the obese.—*Pacific Medical Journal.*

Headache in Typhoid.—The cephalgias in the early stages are often very distressing. Belladonna is very useful in controlling this symptom; when associated with acute delirium it is more strongly indicated. If the headache is accompanied with pain in

the back and limbs, gelsemium is called for; and if marked languor be present, which opening the eyelids or moving the balls aggravates, bryonia or rhus toxicodendron is suggested, and colchicum will help where the headache is associated with delirium,—when it is especially bad and unyielding, spigelia will bring the needed relief; if not, and the nervous phenomena are being greatly aggravated, then resort to morphine must be had.—*Public Health Journal.*

Saline Injections.—Auto-transfusion can only be considered as a good transient expedient, applicable until saline injections can be used, or to supplement the latter. For all practical purposes the infusion of saline solution alone deserves consideration as a therapeutic agent. It is indicated in haemorrhages, from whatever cause, and especially the obstetrical; in shock, with or without loss of blood; in collapse, occurring in the course of any disease, particularly cholera, cholera infantum, typhoid fever, and especially after severe operations. It may be given in puerperal infection to increase the power of the tissues and blood to resist the action of the microbes, and assist Nature in throwing off their effects. It should be administered hypodermically in two-ounce doses twice daily for some days.—Good results have followed this practice, and it might be available in other infectious diseases.

Saline injections are also beneficial in epileptic and uræmic eclampsias: in poisoning by coal-gas, or by narcotics—as they are a powerful aid to elimination; likewise in anaemia, but to be of benefit must be followed by appropriate food and medication.—WAGONER (*Philadelphia Medical Journal.*)

Thyroid and Arsenic.—The increased use of thyroid extract not only for myxoedema, but for obesity, goitre, certain skin diseases, and in general for malnutrition, renders it important that there should be some means of controlling the vertigo, palpitation, dyspnoea, anxiety, etc., from which sensitive patients suffer. From two to twelve drops of Fowler's solution, at a dose, will be found to prevent any unpleasant symptoms even when taking a dozen grains of thyroid daily. The arsenic does not weaken, apparently, the force of the medicament.—MABILLE (*Revue de Thérapeutique.*)

"Zomotherapy."—Richet and Hericourt treat tuberculosis with expressed meat-juice, a procedure they term "zomotherapy." The results claimed are due, not to the nutrient quality of the food itself, but to some specific cellular secretion contained in the juice; and in support of this theory they point to the greater resistance to tuberculosis of carnivorous as against herbivorous animals. They also give results of experiments conducted by themselves: They inoculated a number of dogs with tuberculosis more than six months ago, and of these one-third were fed with ordinary food, and all died in three to four weeks; another third was nourished on cooked meat, with about the same results; while the final group was fed exclusively with raw meat, and all survived, and at date of report were in good health.—*Deutsche Medizinal Zeitung.*

Petroleum, Physiological Action of.—Petroleum inhibits the growth of putrefactive and pathogenic bacteria such as are met with in the alimentary canal, yet does not inhibit or interfere with peptic or pancreatic digestion. It is therefore an agent for relieving flatulence by preventing fermentation in such conditions of the bowel; in fact, it acts the part of an intestinal antiseptic.

By its action in stimulating peristalsis, and increasing diffusibility of intestinal contents, it helps the natural movements of the bowels and favors the elimination of noxious and toxic products from the system.—WHITE (*Journal of Medicine and Science.*)

Mignonette a Taenicide.—In Russia the flowers of mignonette are very generally employed for the relief of those suffering from tape-worm, and are said to be very satisfactory. They are made into an infusion, and the "tea" drank while fasting, subsequently followed by a full dose of castor oil. A few hours later the parasite is expelled, complete.—*La France Médicale.*

Ozone.—This agent which proves of value in many of the respiratory diseases, does not necessarily require an elaborate apparatus, or to be purchased from a manufacturer that packs in a cylinder. It can be obtained, extemporaneously by taking a bunch of ordinary friction matches, tying them together, dipping in water, and suspending from the ceiling in the centre of the sick room.—STOCKWELL.

Croton Oil.—This agent is undeservedly shunned by the medical profession, and the cause is the customary statement that one drop is a "violent drastic hydrogogue cathartic." In confining himself to doses of one-eighth or one-sixth minim the prescriber secures a gentle purgative action without any disagreeable consequences. The charge against the drug of unreliability can be removed by proper care on the part of pharmacists. Hardened faeces never have followed the use of croton oil in the above manner; commonly there are two or three small (usually dark), discharges, with very little, if any, pain.—BOND (*Therapeutic Gazette.*)

Duodenal Ulcer.—Absolutely nothing should be given by the mouth for about a fortnight. As a nutrient enema employ the following: Beef broth, 140 grammes; six eggs; twenty grammes of wine; two teaspoonsful of salt; beat together thoroughly and inject while lukewarm. The total amount employed at one time should not much exceed one-half ounce, and the enema ought to be varied with ordinary evacuants.

After two weeks a gradual return to ordinary alimentation (by the mouth) may be allowed.—LADEVÉZE (*Journal de Médecine et de Chirurgie Pratique.*)

Aural Suppuration.—Carbolic acid is one of the best remedies at our command for the topical treatment of this condition. Apply by means of a cotton swab or an atomizer, allowing to remain *in situ* for thirty to sixty seconds, then neutralize by means of alcohol.

In my experience this agent is without a peer in all cases where there is suppuration about the ear or its accessory channels. The unhealthy granulations quickly take on a healthy form; the discharge ceases; and surgical interference is avoided.—PHILIPPS (*Medical Record.*)

Phthisis, Calcium Sulphide in.—Good results have been obtained in the treatment of phthisis by the internal administration of calcium sulphide. Begin with one-half grain every two hours, and gradually increase the dose until eructations or other symptoms of gastric irritation show the limit has been reached. In most cases, patients are able to take one grain every hour, and their general condition in every instance appears to improve.—WITHERLEE (*La Clinique.*)

Pruritus of the Menopause.—Apply locally an ointment composed of five grains veratrine to two ounces of ointment base. If the pruritus is general, the remedy may also be given internally, 1-18 grain once a day, gradually increased to six times a day, either one-half hour before meals or three hours after ingestion of food.—LUTAUD (*Journal de Médecine de Paris.*)

Phthisis.—I treat pulmonary tuberculosis by means of inhalations of formic aldehyde; these inhalations commonly have a strength of six per cent. Compressed air is allowed to pass through this six-per-cent solution of formaldehyde, and the vapor thus formed employed once or twice daily.—MURRELL (*Journal of Medical Science, Dublin.*)

Starch Poultice.—The following is the best method of preparing starch poultice, known also as *Cataplasma Fæculæ*: Mix two ounces of potato starch with a little cold water and add twenty ounces of boiling water; then boil for an instant. If it is required, add two drachms of boracic acid.—*Western Druggist.*

Chancroid.—Cleanse surface and apply nitric acid with glass rod, exposing the surface until pain has ceased; dry and reapply acid in same way; finally, apply a dry lint dressing.—VAN BUREN.

Dry the ulceration and apply evenly equal parts sulphuric acid and charcoal, with wooden spatula.—RICORD.

Apply salicylic acid, powdered, and cover with dry dressing.—ANGLADA.

Fermentative Dyspepsia.—I have prescribed for many years the following and am satisfied as to its value in stomachic cases where there is constantly repeating acid eructation, distension, and what is called “heart-burn”:

Beechwood creosote.....	12 minims.
Proof spirits.....	2½ ounces.
Ammonium benzoate....	2 drachms.
Glycerin	6 drachms.
Infusion of cloves to make	6 ounces.

A tablespoonful to be taken in four ounces of water as required.

I usually direct the dose to be taken between meals two or three times daily. If the acidity is considerable, a little alkali—potassa is best—can be added with each dose, or as occasion may require.

—BENJ. WARD RICHARDSON (*The Asclepiad.*)

Disinfectant, A New.—A recent discovery, which is the outcome of the investigations of Doctor H. Oppermann, is the application of dolomite to antiseptics. The dolomite, after special preparation, is mixed with a certain proportion of oxide of iron and iron pyrites, and the mixture employed in the form of a powder. According to the experiments made at the Hygienic Institute at Kiel, it seems likely to substantiate its reputed efficacy.—*Scientific American Supplement.*

Cirrhosis, Urea in.—Urea, in doses of 150 to 220 grains daily, has been found of value in the ascites due to cirrhosis: It is best given in a five-per-cent. solution in distilled water, a teaspoonful every hour. In two cases the dropsy was completely removed in fourteen days, and the quantity of urine passed daily, by one, rose from 250 to 4000 cubic centimeters. Its administration in nephrolithiasis is often of material value.—KLEMPERER (*Fortschritte der Medicin.*)

Odontalgia.—A small quantity of acetanilid dissolved in the mouth in contact with the affected tooth will often give quick relief.—*Medical Recorder.*

Chorea.—

Try, three to six times daily, a pill containing from one-half to two-thirds of a grain of zinc valerianate with an equal proportion of extract of henbane and bis-muth subcarbonate.—DESCROIZILLES.

Iron citrate	60 grains
Syrup orange flowers ...	q. s.
Water to make 1 ounce.	

A teaspoonful to a teaspoonful-and-one-half after meals in anæmic cases.

—HARTSHORNE.

Take at bed-time a pill containing two grains of zinc sulphate and three grains solid extract conium.—ANDREW.

Prostrate, Enlarged.—

Potassium iodide ..	2 to 4 grains
Henbane, extract ..	5 to 8 grains
Cacao butter	q. s.

Make into a suppository and introduce into the rectum at bed time.

—*Il Policlinico.*

Epilepsy, Mixture for.—

Sodium bromide	60 parts
Sodium bicarb.	75 parts
Phystostigma, tinct.	25 parts
Saccharine	1 part
Water	500 parts

A tablespoonful, in water, morning and evening.

It is well, after four days of employment, to suspend, and permit of an interval of at least three days before renewing.—*Pædiatrics.*

Poultice Substitute.—

Kaolin	1,000 parts
Glycerin	1,000 parts
Boracic acid	100 parts
Peppermint oil	1 part
Wintergreen oil	1 part
Eucalyptus oil	2 parts

Heat the kaolin to 212° Fhr. for an hour to render sterile; then add glycerin and heat for forty minutes. Stir in other ingredients, and keep in air-tight jars.—WILBERT.

Biliary Calculi, Amyl Valerianate in.—
It has been repeatedly shown that amył valerianate possesses an affinity for, and solvent action on, the concretions of the gall bladder and its duct. Recently it has been employed for the removal of gallstones with the happiest effect. The following is a most satisfactory and palatable mixture:

Amyl di-valerianate	1 part
Sweet almond oil	24 parts
Muciilage of Irish moss ..	28 parts
Raspberry syrup	60 parts
Water	60 parts

A tablespoonful to a glass of water, taken hourly until relief is afforded.

—*Indian Medical Gazette.*

Sycosis.—The worst forms of barbers' itch will generally yield to the following if persistently applied:

Ichthyol	15 grains
Salicylic acid	15 grains
Gray oil	300 grains
Zinc oxide	100 grains
Starch	100 grains
Vaseline	200 grains

—VORCO.

* When all else fails, try a freshly-made ointment of potassium sulphate, ten to fifteen grains to the ounce of base.—Ed.

Catarrh, Genito-Urinary.—Infuse four drachms of henbane leaves in a pint of boiling water, and give a teaspoonful every half hour for six hours, unless throat becomes dry or patient drowsy.—DIDAY.

Atropine sulphate....	1 grain
Acetic acid.....	20 minims
Alcohol and water—of each	4 drachms

Four drops in wine-glass of water before each meal.

Especially available if there is acute cystitis.—GOODELL.

Pericarditis.—

Tartar emetic	4 grains
Laudanum	1 drachm
Camphor water	8 ounces

One tablespoonful every two hours in the acute form.

—GRAVES.

Tincture aconite root ..	4 minims
Water	1 ounce

A teaspoonful every ten or fifteen minutes for two hours; then every hour or two.

—RINGER.

Apply a cantharidal plaster over the precordium in the chronic stage, and repeat at intervals after the skin has healed. The size should be not less than two by three inches.—TANNER.

Gall-Ducts, Catarrh of.—

Give drachm doses of sodium phosphate every fourth hour with an abundance of water.—BARTHOLOW.

The following is especially useful when there is marked jaundice:

Ammonium iodide ..	60 grains
Fowler's solution	30 minims
Columba, tincture ..	4 drachms
Distilled water	12 drachms

Teaspoonful three times a day before meals.

—FARQUAHRSON.

As an alterative and prophylactic, may be given five to fifteen minims each of fluid extracts of golden seal, and wahoo, in any convenient vehicle.—CHEINE.

Urine, Suppression of.—In this condition in infants, sugar of milk in doses of from forty to sixty grains will prove an excellent diuretic.—*Medical Times.*

Medical Progress.

Cause of Baldness.—

It is generally supposed that baldness, like gray hair, is a necessary accompaniment of advancing age, but this is only because the older a man is, the more time he has to neglect and abuse his hair, and the more likely he is to have lost it.

Some men are more prone to baldness than others because of thinness of the scalp, which interferes with the proper blood supply to the hair follicles: This is often a family failing; but in such cases baldness might be prevented, or postponed for many years, by care. In a few instances the hair falls out as the result of some special disease, but in the great majority of instances there is absolutely no reason why, if properly treated, the hair should not last as long as its possessor.

The chief cause of baldness is pressure by the hat which constricts the blood-vessels and so interferes with the nutrition of the hair bulbs. It is probable, also, that the shutting off of light and air by the hat helps the mischief. An unhealthy condition of the scalp results, the sign of which is an abundant amount of dandruff.

There are many facts which go to prove the truth of this: First, women rarely become bald; they wear hats it is true, but their hats are not air-tight casings, nor do they make pressure round the head like the head-gear affected by man: Second, baldness is almost unknown among savages, who wear no hats; neither is it common among men in the tropics, where very light hats are worn.

Laborers are less prone to baldness than professional and business men: This has led to the belief that brain-work favors a smooth and shiny scalp by withdrawing blood therefrom; but this is only self-complimentary on the part of those who advance the theory. Laborers generally wear soft, felt hats or caps, which are apt to be pushed to the back of the head, so that the head obtains plenty of light and air. As further proof, we find that the baldest men usually have sufficient hair at the back and on the sides of the head below the hat line.

The inference is plain—wear a soft hat or none at all. If custom forbids this, then the best a city man can do is to wear his hat as little as possible, and never to keep it on in the house or office.—*Youth's Companion.*

Obstetrics, Preparatory.—

The time has passed when pregnancy and labor can be regarded as normal and physiological processes; otherwise there would be no obstetricians nor, for that matter, any midwives or nurses. The woman would retire to a convenient part of the house at the outset of labor and after a short time bathe the baby and herself, dispose of the secundines, and possibly lie down to rest for a few minutes before rejoining her family,—just as her savage sister does to-day.

Impress upon your own obstetric patients that it is absolutely essential for them to place themselves under your care as soon as they know that they are pregnant, and to conform implicitly to your directions, until you yourself "discharge them cured" at the end of the puerperium. Examine the heart, lungs, liver, and spleen early in pregnancy, and take external pelvic measurements not later than the sixth month. Analyze the urine regularly once a month until the end of the seventh month, and then once a week till labor occurs. Test for albumen, urea, and sugar.

If the urea falls below 1.5 per cent. have the twenty-four hours quantity measured and determine the total amount of urea excreted in that length of time. If this amount is less than 300 grains put your patient on a milk diet until it comes up.

Determine the position and presentation of the fetus in the eighth month, and, if it is abnormal, correct it by external version. Make subsequent abdominal examinations at intervals of one or two weeks until labor takes place.

Instruct your patient how to prepare her room and bed for her lying-in, and give her a list of the articles she will require at the time of her labor.

Respond promptly to every labor call. Take with you everything essential to the maintenance of absolute asepsis from the beginning to the end, and everything that you may need in an emergency, such as sterile gauze for packing the uterus in the event of hemorrhage, drugs for the treatment of eclampsia, and the like.

These articles take up very little room in the bag, and a man may better carry them all his life to no purpose than lose one patient for want of them. Regard every labor as a surgical procedure, and conduct it as such. Treat your post-partum patients as you would any other surgical convalescents. —COOKE (*Journal of Surgical Technology.*)

The Tongue and Hydrogen Di-Oxide.

—A curious phenomenon is observable in regard to the tongue when per-oxide of hydrogen is administered for long periods in medicinal doses. It becomes moist and of milky whiteness, the fur, as it is commonly called, becoming whiter than cream. At first I thought this appearance might be connected with the disease, although to my eye it was novel; but it has recurred so steadily and, for so many times, after the per-oxide administration, there can be no doubt as to its being the effect of definite cause. It has been most manifested in cases of enteric fever in which the medicine has been given in two-drachm doses of ten volumes strength, well diluted, every four or six hours for several days, and it is a good sign the remedy is having the desired effect. No harm is indicated by the appearance, but it is proof of a favorable condition when the breath is free from taint, and the teeth of sordes. After the remedy is withdrawn, the white condition clears off, in six, or seven days, leaving a moist clean surface.—BENJ. WARD RICHARDSON.

Intestines, Sarcoma of.—

This is more common than text-books indicate, and much more frequently affects the small than the large intestine.—The ileum seems to be its favorite location. Sarcoma rarely produces stenosis; dilatation is more frequent. Usually it grows from one side of the bowel entirely.

The diagnosis is difficult and will always remain obscure; still, if a smooth, freely movable tumor be found in the abdomen, unless it can be otherwise satisfactorily accounted for, it should be a reminder of the probability of sarcoma, especially if there is also present the general picture of the disease with its peculiar anaemia.—VAN ZWALLENBURG (*Journal American Medical Association.*)

Locomotor Ataxia.—An important symptom is a band of tactile anaesthesia more or less complete around the chest at the level of the nipple.—*Indian Medical Record.*

Bright's Disease.—Ammoniacal breath in the subjects of this malady is usually a forewarning of uræmic attacks.—WARREN.

Laryngeal Pachyderma.—

This is only a chronic inflammation of the mucous membrane, a lesion resulting either from a simple catarrh, tubercle, syphilis, or early cancer. The "diffuse" form is especially associated with abuse of alcohol or tobacco, the excessive use of the voice in the open air, or exposure to the inhalation of various forms of dust: The "nodular" is more closely associated with children, women of middle age employed as teachers, actresses, singers, or girls who have been badly taught to sing, more rarely, with men.

The nature of the affection is indicated by the aspect, disposition, and seat of the lesions; the course of events, age, sex, and mode of life of the patient; and the state of the nasal fossæ and pharynx, etc. Though chronic and progressive and often rebellious to treatment, the condition is curable, but often enough when one side gets better the other becomes affected.—VIRCHOW.

Constipation, Chronic in Infants.—

This condition is attended with many difficulties, and may not be dismissed with a prescription for a few doses of laxative medicine, but requires most careful and painstaking consideration. The difficulty may often be avoided by the systematic establishment of regular habits in infants soon after birth: Even babies only a few months old may very easily be taught to use a chamber or chair, if they are systematically trained to do so, much to their comfort as well as to that of those who have their management. And it is just as important for older children to have a regular time for this function as it is for adults.—COOK (*American Journal of Obstetrics.*)

Small-pox in New-Born.—

An infant on the third day after birth developed elevation of temperature and eruption which became pustular on the sixth day, whereby a diagnosis of small-pox was established. The mother had been vaccinated and was at the time perfectly healthy. The period of incubation being ten to fourteen days, it can only be believed the disease was the result of intra-uterine infection; it is also apparent that vaccination of the mother does not protect the foetus *in utero* against small-pox.—VOITSECHOWSKI (*Vratch.*)

Uterine Hæmorrhage.—

Given a case of profuse, either menstrual or otherwise, and ergot is the drug *par excellence* for arresting the flux, especially where muscular contraction is indicated. Ergot is, therefore, of value in uterine fibroid where the tumor is well surrounded by muscular tissue, or if it is changing from the interstitial to the sub-mucous variety. Here the drug serves two useful ends: It diminishes the blood supply to the uterus and also favors the extrusion of the tumor and its conversion into a polyp, which latter form lends itself to easy operation.

Hydrastis, in my experience fails in cases of fibroid tumor; but serves a very useful purpose in endometritis; also in the milder forms of menorrhagia, if given continuously for two or three months, it will materially check the flow.

Unfortunately, drugs will often leave us in the lurch in a bad case of hæmorrhage, in which event continuous packing is by far the best treatment, especial care being taken to fill and distend the cul-de-sacs. It is useless to waste time with hot water injections.—DAVENPORT (*Annals of Gynecology and Pediatriy.*)

Carbolic Acid, Poisoning.—

A solution of carbolic acid, one to forty, was applied to the unbroken skin of both legs of a child, age four years. At the end of four hours, the patient being as well as usual, the limbs were scrubbed with turpentine and the compresses re-applied. At the end of forty minutes the child was in an unnatural deep sleep, and eighty minutes later was markedly collapsed and comatose. By removal of the compresses, and active stimulation, continued for a number of hours, the patient recovered.—DOUGLAS-CRAWFORD (*The Lancet*, London.)

Uræmic Salivation.—

In a case of Bright's disease with cardiac symptoms there was intermittent sialorrhœa. The salivation came on whenever the patient exerted himself, also whenever the urine was less than usual in amount; there was no stomatitis. The flow, although very annoying and perhaps capable of becoming so severe as to weaken the patient, was looked upon as salutary to the extent of postponing grave uræmia.—RENON (*Journal des Praticiens.*)

Imagination, Effect of.—

A woman, after awakening from sleep and missing her false teeth, believed she had swallowed them: Symptoms of distress and suffocation came on and she was taken partially insensible to the New York Hospital. Preparations were made for immediate tracheotomy, but before this could be effected she died—really from fright, as her teeth were subsequently found in a fold of her dress.—MENDELSON.

Intestines, Resection of.—

In a case of bowel obstruction in a woman, age sixty-two years, a sequel of femoral hernia, a laparotomy was performed, when it was found necessary to remove the forty-eight inches of sphacelated small intestine. The ends were united by a Murphy's button which passed on the tenth day. The patient made a good recovery.—MCNUTT (*Pennsylvania Medical Journal.*)

Antipyrin and Malignant Disease.—

Hepatic cirrhosis may be artificially induced in the lower animals by small doses of antipyrin. The drug appears to cause destruction of the liver cells which induce malignant degeneration.—MARCKWALD (*Munchiner Medicinische Wochenschrift.*)

Therapeutics of the Mosaic Period.—

The oldest medical writing which has been discovered is the Ebers Papyrus in the University Library at Leipsic, containing over 100 pages, in hieratic characters. On one of the leaves is evidence that this manuscript dates from at least 1550 B. C., or before the book of Exodus was written: Evidence is not wanting also, to show that this is only a copy of a much earlier work. The entire compilation is claimed to be hermetic, i. e., inspired.

More than 700 materials from the mineral, vegetable and animal kingdom are mentioned as medicaments, and the mixtures prescribed are generally complex, ten or twelve ingredients entering thereinto. It is also worthy of note that cotton is mentioned as an application to wounds, and even in that early age teeth were filled with gold. The following relates exclusively to plasters and local applications:

To Exterminate Diseases that affect one side of the Abdomen.—Lettuce and dates each one part, boiled in oil and applied:

Maladies that Originate from Worms.—Apply to the abdomen resin of acanthus, peppermint blossoms, lettuce, F'as-plant, equal parts, mixed:

Injuries to the front of the Leg.—Interior of the head of the sheath fish dissolved in honey:

Ergotism (known to the Egyptians as wha-disease).—Oil, red corn, sea salt, way-bread (*Plantago-major*), natron, ground together:

Inflammatory Abscesses.—Crushed dates, beans, acanthus resin, lint, sweet myrrh, and sweet beer:

Inflammations affecting the Lower Abdomen.—Fruit of daum palm, roasted wheat, wheat flour, cornmeal, dhourra (*Sorghum vulgare*), xet-plant (*Frutex hortensis*), and honey:

Heart Plasters (When the blood has stopped and does not circulate).—Ox-tallow, crocus seeds, coriander, myrrh, ääger-tree, powdered together: For "hardening of the cardiac region."—Bread of the lotus-tree, watermelon, excrement of cats, sweet beer, and wine:

To Exterminate Diseases in all the Members.—A solution of sebeb-mixture to be mixed with sour milk, and applied as a plaster:

Squinting of the Eyes.—Acanthus resin, onion powder, ground granite.

Bites and Stings.—Incense, green earthy lead-spar, antelope brain:

To Grow Hair upon a Cicatrix.—Juniper berry, cypress, fruit of the am-tree, pressed raisins, fruit of the daum palm, oil and honey:

To Relieve a Burn.—Onions, red lead, fruit of the am-tree, ground and rubbed with copper filings: For Suppurative Burns.—Crocodile incense, fat of the Nubian ibex, pebbles from the river, wax, onions, oil, lapides of the sole, red seeds, thick sap of the cedar tree, sycamore, anest-plant:

For Fætid Gangrene.—Copper filings, verdigris, ink, fresh incense, cumin, cassia-seed, grain, wax, aloes, poppy-resin, sweet myrrh ointment, and honey:

To Obliterate the Marks of Bruises.—Honey, cow's brain, clay, linseed-water, sap of dates, boiled together:

When Discharge Springs Up.—Jehui berries, eatable herbs, usa oil, honey ointment, withered garlic:

Dressing for Wounds.—Wax and coriander, dried and ground: Wounds of the Mamma.—Usebet-grain, sea-salt, layer of

fat: Wounds of the Neck.—Myrrh, powder from the cotton plant:

Discharges of Any Sort.—Waste of dhourra mixed in the fat of the hippopotamus or fat of swine; or, boiled dhourra onions, incense oil:

To Gain Flesh.—Collyruin, cow's fat, brass filings covered with verdigris, honey:

To Ease a Wound.—Ant-fish, temt-fish, onions, wax, mud from the Nile, honey:

To Draw Impurities from Wounds.—Apesnen grains, natron, clay, onions, incense, peelings of dates:

To Drive Away Scurf.—Flour of fresh dhourra, swamp cypress, cypress of dry lands, cypress roots, collyruin, flour of gaäti grains in fresh oil, cotton lint, tit-grain, incense, goose oil, stamineous seed, baa-fluid uit grains, jelly of boiled net 'hat' ehat berries, red corn:

Itching, to Relieve.—Juniper berries, an un-plant, linseed, sebtetit-plant, absinthe, natron, powdered amaa-plant, lees of wine, raw date juice, boiled together:

Sores on the Neck.—A bat cut in two and applied as a plaster:

Thigh or Leg, to Limber.—Cypress, fat meat, wheat flour, honey, mixed together and applied:

Corns.—Juniper berries, jehui berries, cow's fat, boiled and applied for four days:

Back-ache (When the perspiration has a bad odor).—Natron of the South, 1-32; natron of the North, 1-32; limiment, 1-8, mixed, and applied:

For Trembling Fingers.—Berries from the tenner plant, cow's fat, sesga grain, milk, sea salt, sycamore, boiled together:

To Strengthen the Nerves of the Spine.—Wax, cow's fat, resin of acanthus, flour of the teun-plant, stalk of the gadet-plant, sehetet grain, cake meal, onion meal, honey, boiled together:

To Refresh the Nerves and Muscles.—Ahemt resin, incense ointment, wax, fibers of the aloe, fibers of the uan tree, berries of coriander, pork fat, ox fat, boiled together:

Hardened Flesh, to Soften.—Honey, wax, onions, absinthe, uan berries, crocus berries, cypress roots, calamint oil, linseed, cedar oil, sert juice, sert berries, incense, green lead-spar, amaa powder, boiled together.

Suppurative Tumor of Throat.—Boil together and apply as a plaster, wax, cow's fat, xet-plant, ink, teum plant, cumin, copper filings, verdigris, goose grease, berries of incense, collyruin.—Condensed and Adapted from *Red Cross Notes*.



DETROIT MEDICAL JOURNAL

Original Articles.

SPINAL PUNCTURE.

BY ANGUS McLEAN, M. D.

This subject has excited very general discussion during the year passed, and still evidences being in its infancy. Strange to say, though at first deemed a procedure wholly surgical in character, latterly it has become of equal interest, if not paramount, to physicians. It embraces three distinct procedures, each differing vitally in results, viz.:

Lumber puncture and subarachnoidal anaesthesia for general surgical work:

Spinal puncture for the removal of cerebro-spinal fluid:

Epidural puncture for the production of analgesia and the administration of soluble drugs.

Subarachnoid cocaineization is gradually but surely spreading, meantime taking place among operations of the first rank and utility. Cocaine was first used as a local anaesthetic to mucous membranes; subsequently stronger solutions were employed subcutaneously to limited areas; later in diluted solution it was combined with morphine and salt (Schleich's form-

ula) to anaesthetize extended areas; again, was injected into the nerve trunks, and finally; introduced into the vertebral canal for its direct action on the lateral portion of the spinal cord.

Spinal cocaineization is a purely American idea, first instituted in 1885, by Doctor Leonard Corning, and was the accidental outcome of certain experimental researches. Two years since the subject was revamped by Bier, of Germany; and later taken up by Tuffier, of Paris, who demonstrated the applicability of the method to operations below the diaphragm. Since August last, the operation has been generally accepted and employed in the various medical centers of the world, and especially in the United States.

The application is made by placing the patient in the sitting posture with the spine flexed, and injecting into the lumbar region of the spinal canal an aqueous solution containing from one-fifth to one-third of a grain of cocaine muriate, preferably in the form of a two per cent. solution. Many special devices have been instituted to facilitate this operation, and even needles of gold or platinum have been devised, which obviously entail unnecessary expense, since I have employed, successfully, needles of finely

*Read before the North-Eastern District Medical Society, Port Huron, Michigan, July 25th, 1901.

drawn crucible steel, with trocar inserted. So too, inexpensive all-glass syringes, and glass syringes with rubber-tipped pistons answer every purpose, as either can be sterilized by boiling, and moreover discarded after employment if desired.

The needle is inserted through the lamellar space of the fourth and fifth lumbar vertebrae,—the usual locality, though a space or two above will answer as well,—the tip of the spinous process of the fourth lumbar vertebra affording an excellent guide, particularly as it is on a level with the crests of the ilia; it is entered about one-half inch from the spinous tip (laterally), and directed inwards toward the median line until the vertebral canal is reached, when if in proper position, spinal fluid will follow withdrawal of the trocar.

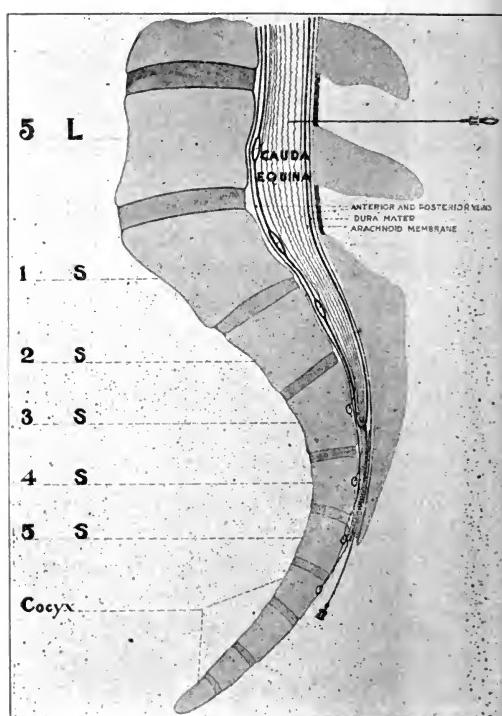
The cocaine may be prepared in different ways: By dry sterilization,—and a known quantity carried in an envelope and dissolved in the required amount of sterilized water: Or it may be dissolved on a water-bath and the solution subsequently put through a Chamberlain filter. With either, and careful sterilization of needle and syringe, there is very little danger of infection, and I have yet to learn of a case of sepsis following this operation.

The injection affects patients differently. In some analgesia is secured in from eight to twenty minutes, while in others it only obtains after a lapse of half-an-hour. Its first manifestations are in the soles of the feet, then gradually extending upwards to the umbilicus, and as high perhaps as the clavicle—I do not know just why this difference should be, but have imagined it due to the locality in the canal reached by the cocaine, or the amount of cerebrospinal fluid present.

The injection not only differs in its analgesic properties in different individuals, but induces widely different symp-

toms: Some become pale and nauseated in a few seconds, with ultimate emesis, these phenomena being accompanied by tremor of the lower extremities and slight evidences of shock; others again will exhibit no signs of gastric or circulatory disturbances, or indeed any other untoward or unpleasant symptoms—they merely become talkative, and appear to be stimulated by the drug.

The most constant and annoying distress that follows the operation is head-



ache—frequently of most severe character and referable to the occipito-cervical region,—that comes on from three to six hours after the injection, persisting perhaps from twelve to eighteen hours (in severe cases, three or four days, as happened in one instance); it may also be accompanied by rigidity of the muscles of the occipito-cervical region, that is not readily relieved by ordinary therapeutic measures. It may here be remarked that tropo-cocaine does not produce the unpleasant after-effects that accrue to co-

caine, and that Willy Meyer* employed it in genito-urinary surgery with great satisfaction; also Schwartz† employed it in sixteen cases with equally successful results, the dose being from one-half to four-fifths of a grain; but personal experience with the drug in two cases is not corroborative, and it did not appear to produce complete anaesthesia.

During the discussion of spinal narcosis at the Thirtieth Congress of the German Surgical Association, convoked at Berlin the present year, Mikulicz reported its satisfactory employment in forty cases, predicting it would speedily become one of the most important methods of anaesthesia, particularly when it is better understood; also Bier presented records of 1,200 cases operated on by the method, at the same time pointing out that a great difference exists as to the amount of cocaine required to produce the desired effect,—the amount varied from one to three centigrammes; he tried eucaine, tropo-cocaine, and other drugs, with but limited results; and in many instances symptoms of cocaine poisoning supervened, such as rise of temperature, nausea, vomiting, dizziness, chills, circulatory disturbances, paresis, etc. He remarked "the operation demands further investigation before being generally adopted."

In my experience, the most annoying symptom is the severe headache which—though in many instances mitigated by the use of bromides, codeine, hyoscine and nitroglycerin—is with difficulty relieved. Just what is the cause of the cephalalgia has not been definitely settled; Bier lays great stress on maintaining the equilibrium of the spinal fluid—i. e., to allow the same bulk to escape as that of the cocaine solution to be introduced; nevertheless I have seen very severe

headaches follow this precaution, even when closely adhered to. The drawing off of the few minims of cerebro-spinal fluid, in which to dissolve the cocaine, and then reinjecting, has been tried but did not succeed in obviating the headache; it is therefore doubtful if the alkaloid is the cause of the suffering, particularly as the same symptom accrues to the use of a saline solution, or even simple distilled water. It goes without saying, however, that the solution should be of the same temperature as the body.

There are many cases in which this form of anaesthesia is preferable to that obtained by inhalation, more particularly peritonitis, distension of the stomach and intestines, kidney disease, pulmonary difficulties, and cardiac maladies. I have operated by this method some thirty times, and am of the opinion it is about as difficult to select the patient on whom it will act favorably, as to determine beforehand one which will act well under the ordinary general anaesthetics. I have seen the strongest men suffer most severely from its effects and, *per contra*, I recently operated on a lady, aged seventy, for senile gangrene, amputating above the knee, who did not appear to suffer in the least; upon being returned to her room she immediately asked for a cup of tea, which was greatly relished, then sat up in bed during the day as if nothing had occurred.

In all instances in which I employed this procedure, there were no manifestations of sepsis or spinal irritation; and I have recently seen some of those operated upon six months since who never had any manifestations of secondary trouble.

I am of the opinion that subarachnoid narcosis has a useful position in the field of surgery, but do not believe the boundaries of its domain have been sufficiently delineated. Again, it cannot be hoped it will wholly supersede general anaesthesia for all operations below the diaphragm, at

*Medical News, April 15th, 1901.

†Centralblatt fuer Chirurgie, March 2nd, 1901. .

least not until more perfect methods of technique have been adopted, or some preparation of cocaine developed, or selected, that will be followed by less distressing symptoms than at present obtain.

Spinal puncture for the drawing off of cerebro-spinal fluid for the purpose of relieving pressure and headache has been practiced in a number of instances. Marie* reports a case of severe headache in the course of Bright's disease, not at all amenable to ordinary therapeutic measures, in which he withdrew six cubic-centimetres of cerebro-spinal fluid by lumbar puncture with the happiest of results. La Guidré states that a house-painter, a victim of lead poisoning and suffering from myosis, cephalalgia and insomnia, was restored to comparative health by removal of thirteen cubic-centimetres of cerebro-spinal fluid; he also resorted to lumbar puncture in a number of cases of meningitis with benefit; and likewise observed that the withdrawal of a few minims of fluid relieved the headache that supervenes upon spinal narcosis.

The epidural or extra-dural method is of comparatively recent date, the originality whereof is claimed by Cathelin and Sicard, of France, though the majority of writers concede to the prime originator of subarachnoid narcosis, viz.: Doctor Corning. This belongs less to the domain of surgery than that of medicine, and is recommended as a superior method of administering the soluble drugs usually employed by the mouth, rectum, or by subcutaneous or intravenous injection. The dura mater of the spinal canal is continuous with that of the cranium, and not attached to the inner wall of the spinal canal through sheathing the spinal nerves through the foramina when they leave the vertebral cavity. The space between

the spinal wall and the dura contains fatty tissue and lodges the anterior and posterior meningeo-rachidian veins, that run the entire length of the canal, are devoid of valves, and supply a ready avenue for the absorption of remedies injected; hence the favorite point for epidural injections is the sacral canal. Again, the dura becomes obliterated opposite the third sacral vertebra, leaving the portion below this point (about two inches) filled with loose tissue and veins; and owing to the non-development of the laminæ and spinous processes on the lower sacral vertebrae, the canal is open, and easily punctured and entered at a point about two and one-half inches from the top of the coccyx (in the adult), where is formed a triangular depression, the apex upwards, surrounded by three small tubercles. By passing the finger firmly along the coccyx and lower portion of the sacrum, the free V-shaped margins of the canal may be detected. The space between the lateral tubercles is about one-half inch, with an antero-posterior diameter of one-fourth inch; but the size and shape of the opening differs in individual subjects, and on some occasions the antero-posterior walls almost obliterate this space.

The patient is placed in the knee-chest position, the tip of the left forefinger kept on the apex of the triangle, when the needle (held on a line with the body) is inserted into the canal, tilted slightly posteriorly in order to follow the posterior convexity thereof, and passed in from one inch to an inch-and-one-half. There is no danger of wounding any vital structure by this method, for the meningeal sacs, as already intimated, become obliterated about two inches above the terminus of the canal, and are only continued downward as the filum terminale. The sacral nerves, covered by the prolongation from the dura, occupy the lateral margins of the canal, and need in no way be interfered with if the needle is carried along the center. After the opera-

tion is finished and the needle withdrawn, Chipault requires his patients to assume the Trendelburg position in order to facilitate the dissemination of the medicament, while Sicard prefers the lateral decubitus on the affected side. I employ a needle two inches long and slightly curved to correspond to the curve of the sacrum.

Since personal experience with this latter method has been limited, I offer the evidence of some of its earliest advocates:

Cathelin* reports brilliant successes in a number of instances from the use of cocaine in the treatment of neuralgia of the legs, sciatica, lumbago, lightning pains of tabes, parturition, diseases of the rectum, etc.; likewise large doses of chloral in tetanus, and the soluble salts of mercury in cerebral syphilis. Sicard† reports equally fortunate results. Colville entirely relieved three severe cases of sciatica by injecting a mixture of guaiacol, orthoform, and benzoic acid in oil of sweet almonds.

Epidural cocainization does not anaesthetize the skin but only the deeper structures, and analgesia takes place in from four to five minutes and persists from two to three days—the amount employed is from one-third to three-fifths of a grain.

This method of administering soluble drugs is quite simple, and scarcely more dangerous than the ordinary hypodermatic injection. I believe it will prove to be a most useful and advantageous acquisition in the field of medicine.

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PERI-TONSILAR SUPPURATION.‡

BY HENRY J. HARTZ, M. D.

As the nomenclature of diseases ought to suggest something of their aetiology and pathology, it is of interest to note that the ancient Greek writers designated the major-

ity of throat diseases as *paristhmitis*, a term equivalent to the more modern *amygdalitis*; later writers employed the term *cynanche*, which more properly refers to an oedematous type that is accompanied with dyspnoea.

Prior to the advent of bacteriology, the terms *Angina superficialis* and *A. phlegmonosa* were selected as descriptive of superficial and deep sore throat, and these forms when attended by sloughing were described as "diphtheritic."

The aetiological factors were held to be chemical and mechanical irritations, as well as meteorological influences, such as exposure to cold and wet which, together with a *locus minoris resistentia*, initiated in the mucous membrane an inflammation which sometimes became epidemic. However, with the growth of pathology and specialism, designations such as oedema, phlegmon, and erysipelas of pharynx and larynx, obtained, intended solely to differentiate the precise form of inflammatory process. Sir Felix Semon, of London, pleads that phlegmons of the pharynx and larynx, laryngeal erysipelas, pharyngeal oedema and Ludwig's angina, are identical diseases in-so-far as pathology is concerned, and consequently that they should be so classed, and preferably as acute septic inflammations. All are due to the entrance of germs into the tissues through abrasions of the mucous membrane, and they merely represent different degrees of virulence: Again, the inflammatory changes merge so gradually from the serous form to the purulent that it is impossible to at any point draw a definite line of demarcation between the oedematous and the suppurative, the purely local and those complicated by systemic affections. Semon cites (along with certain autopsy), in support of his views, fourteen cases of acute septic inflammation of the neck and throat, some of which were followed by pericarditis, pleurisy, pneumonia, peritonitis and septicaemia; and in all the coccus form of micro-organism had found ingress through sections of the protecting surfaces of the mouth and the

**La Presse Medicale*, Paris, June 15th, 1901.
†*Ibid.* June 19th, 1901.

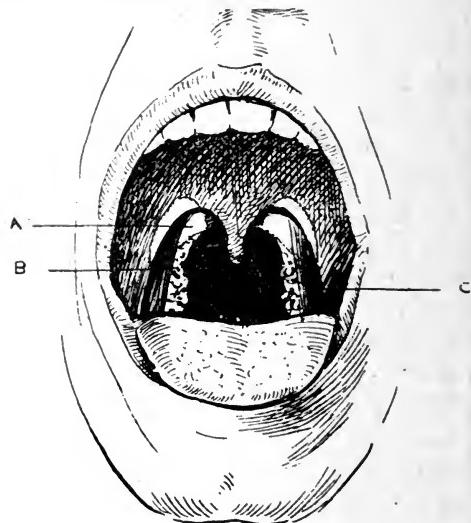
‡(Read before the American Rhinological, Otological and Laryngological Society, New York City, May 22d, 1901.)

peri-pharyngeal region,—usually the tonsils are at fault. He firmly believes that the tonsils form a natural portal for the entrance of germs which, by means of the lymph channels or blood-vessels, invade the economy.

The foregoing evidences, or at least suggests an identity with that class of concealed infection which the older clinicians observed, and to which Leube, of Germany, gave the title *crypto-genetischer-septikopyemia* as evidencing the disease generated within a crypt or fold of membrane. Von Jurgenson explains this disease from the standpoint of bacteriology and pathology and believes that the *strepto-* and *staphylococci* are the exciting agents; the former is found within the cellular tissues, acting through the lymphatic channels and inducing septic inflammation, while the *staphylococcus* is found in the blood stream and consequently may be deposited at any vulnerable point within the economy. The primary location of the germ is, frequently, in the throat, whereby a simple faucitis may initiate a systemic infection, though more often it is apt to be a phlegmonous angina that calls into existence profound conditions of septicaemia.

Recent German literature contains interesting autopsy reports confirming Von Jurgenson's views: These show that an infection often results from a chronic, latent, tonsilar abscess, by way of the lymphatics and extending to the peri-tonsil region, thence to the mediastinum, leading to purulent pleurisy, pneumonia, pericarditis or pyemia. These post mortem investigations are instructive, inasmuch as they prove that cocci may be encapsulated by connective tissue cells and held quiescent, just as the bacillus of tuberculosis is walled up within the tubercle. The encystment of the *staphylo-* and *streptococcus* is not so firm as that of the tubercle bacillus, and, therefore, an acute angina may develop a solution of continuity whereby the germs are permitted to invade the organism at large. Latent chronic ab-

scesses can not be diagnosed *in vivo*, the tonsils presenting a clear surface; but upon section five or six small cavities may be exposed, some of which are confluent; the walls of these abscesses indicate by their thickness and other signs, their latency. The *streptococcus* within these abscesses can be traced by microscopical search through the lymph vessels to the mediastinum, and the suppurations of the latter are found fresh and new as compared with those in the tonsils—the pus has burrowed from these glands through the cellular tissues and mus-



A.—Supra-Tonsilar Fossa.
B.—The Tonsil.
C.—Plica-Triangularis.

cular interspaces to the organs affected. Goodale, of Boston, has shown the existence of acute abscesses within the parenchyma of the tonsils during life, and, moreover, discovered *streptococci* invading the peri-tonsil tissue by way of the efferent lymph-vessels.

The literature of the last half decade presents abundant evidence that the tonsils, having direct interchange with the lymphatic vessels, permit of the entrance of microbes, and the observations of the older clinicians are substantiated by the investigations of bacteriology and pathology. The connection between circum-tonsil and tonsilar suppuration is so intimate that, for the

purposes of aetiological discussion, they may be considered as identical. Just as the brain and its blood-vessels are infected through a suppuration of the middle ear, so the circum-tonsilar tissues are invaded secondarily to tonsilar and fossa disease; at the same time there are other sources of infection such as caries of the teeth, nasal operations, abrasions of the pharyngeal membrane, etc.

The tonsils are especially prone to infection owing to a constant evolutionary process or metamorphosis tending to obliteration, in evidence of which may be cited the fact that peri-tonsilar diseases occur chiefly in adolescents and junior adults (up to the age of thirty-five), or during the time that retrograde changes or atrophy of the lymphoid tissue obtain. The anatomical relationships of the tonsil with the plica triangularis and the supra-tonsilar fossa are important factors in the induction of tonsilar and circum-tonsilar suppuration—the plica triangularis and the supra-tonsilar fossa become structurally altered, especially in children, as the result of disease. The inflammatory exudate produces not only adhesions but likewise connective-tissue bands between the fossa, the plica, and the tonsils, that result in occlusion of the orifice of the former and of (some at least) the crypts of the tonsils. The secretions thus confined under pressure form a favorable nidus for the development of pathogenic bacteria that, under normal conditions would remain innocuous. The ensuing inflammation and consequent hyperæmia, affect the integrity of the epithelium lining the crypts, the destruction of which may be only superficial in depth and microscopic in extent, but sufficient to allow the ingress of germs, and any obstruction of the crypt will favor the encystment of the pyogenic agents, thereby resulting in lacunar or intra-follicular abscess. The suppuration may be encapsulated, or it may empty itself into the faucial space: Again it may extend outward towards the cellular investment of the tonsils to form a retra-tonsilar abscess: It may also discharge

into the supra-tonsilar fossa, or if, perchance, the orifice of this fossa is closed by adhesion, the pus is apt to burrow its way in the line of least resistance, entering the pharyngo-maxillary space, thereby inducing a typical peri-tonsilar tumefaction high up in the soft palate. The anatomical obstruction of the tonsil and fossa is brought about largely by the plica triangularis, which owing to its vascularity provides the material for adhesions.

The plica is a triangular shaped membrane which has been termed the capsule and the operculum of the tonsil. It was first described by His, the German embryologist, along with the supra-tonsilar fossa, in 1885, and the designations thus bestowed by him are part of the world's nomenclature. The plica arises from the anterior pillar, which becomes visible at the fifth month of foetal life, and in a typical case extends from the upper posterior portion of the pillar backwards and downwards until it is finally lost in the tissues at the base of the tongue. From its position it often covers over that portion of space not occupied by tonsilar tissue and known as the supra-tonsilar fossa; it is likely also to obstruct the mouths of a number of the tonsilar crypts thereby damming up the secretions and furnishing excellent culture grounds for germs. A plica adherent to the edge of the tonsil gives rise to the formation of elongated cavities extending one or two inches behind and towards the base of the tonsil. Also, some of the lacunar orifices may be obstructed by the envelopment of the plica, and thus secretions accumulating become decomposed, whereby the absorption of this morbid material may induce hypertrophy and suppuration extending often to the cervical glands, and is frequently the means of initiating an attack of circum-tonsilar inflammation. The plica also is often adherent to the apex of a hypertrophied tonsil, both together obstructing the fossa: An abnormal amount of adenoid tissue may extend into the space sufficient to interfere with its capacity, predisposing

the fossa to suppurative processes. The plica and supra-tonsilar fossa are nearly always demonstrable in the young and middle-aged; and coincident with atrophy of the glands the fossæ become shallow and the plicæ recede toward the posterior pillars and traverse the inter-facial spaces obliquely downward. The intent of Nature in providing the plica appears to be somewhat obscure, yet the concensus of opinion is that its purpose is to afford a support to the tonsil, and to protect its buccal surface from injury.—The peri-tonsilar abscesses that have come under my personal observation have all exhibited an extraordinary, if not abnormal, development of the plica. This membrane, too, sometimes, retains within its folds and in the cavities, decomposing substances that develop as the result of its adhesion, and thus often becomes a potent factor in the production of foetor of the breath.

Obstruction to the natural channels of drainage then, may be definitely held as one of the exciting causes of tonsilar and peri-tonsilar suppuration, though such predisposing factors as exposure to cold and wet, occupation, habits, age, etc., undoubtedly have a more or less remote influence. Another exciting cause is the presence of some of the ten varieties of cocci that obtain within the tonsil or mouth. The *strepto-* and *staphylococcus* are normally present, but innocuous until such time as predisposing factors permit them to multiply and develop inflammatory processes. Some difference of opinion exists as to whether the germs enter the tonsils primarily through abrasion, or secondarily through the blood and lymph streams, and it is conceivable that both avenues may carry the infection. The lymphoid tissue of the tonsils and the contiguous regions with their capillary circulation, constitute a *locus minoris retentia*, or a "physiological wound" as Gerhard aptly terms it. Articular rheumatism following tonsilitis is in all probability caused by the deposit of germs by the blood or lymph channels in the

serous membranes of the joints, and has been bacteriologically proved to be a suppurative process. It is true that malnutrition and the consequent deposit of crystalline material in the muscles and joints, usually termed uric acid rheumatism, is a predisposing factor in determining suppuration. About one-quarter of my cases of peri-tonsilar abscess had suffered from pain indefinitely described as, or termed rheumatic. The obstruction to crypts of tonsils and orifices of the supra-tonsilar fossæ are the chief causes of suppuration, in proof of which may be cited the fact that when the obstruction is thoroughly removed no recurrences take place, even in those cases that suffered from articular rheumatism.

Peri-tonsilar suppurations are attended at times by only a mild exudation and slight edema which disappears rapidly through resolution and absorption, but in the majority of instances they become circumscribed and result in the formation of abscess. The duration of this septic process depends greatly upon its location, and the degree of virulence of the pathogenic agent but, at the same time, the resistance of the individual also plays an important rôle. A temporary encystment may induce an atypical course.

The obstructions to the channels of drainage in the tonsilar region may be so firm as to force the purulent secretion to burrow in the pharyngo-maxillary space, and thus prolong the suppurative act. Moritz Schmid reports cases of only one month's duration wherein both the tonsils and the pillars were successively invaded: I, also, personally observed an instance in which, after an acute tonsilitis, the left throat was involved including the posterior pillars, and wherein the pus ultimately made its way to the right throat inducing so great congestion as to interfere with deglutition,—the liquid food ingested was regurgitated into the nose. In this case, oft repeated incisions failed to reveal pus sufficient to account for the condition; but after two months a rupture oc-

curred spontaneously in the region of the soft palate on the side first affected, and the patient recovered without further complication.

At a recent meeting of specialists in Paris, the subject of recurring peri-tonsilar abscess was discussed, when Doctor Cartaz presented a case (in a man aged fifty), which, after an attack of acute tonsilitis, developed recurring abscess twelve times during four months; through a fistula in the upper anterior pillar some drops of pus escaped every five days. Vertical incision led to the escape of considerable purulent fluid but this, even aided by an irrigation with a two per cent. solution of chloride of zinc, did not cure, recurrence taking place in fifteen days. Finally, a drainage tube was inserted between the anterior pillar and the tonsil, and removed on the third day, its place being taken by a cat-gut loop; also carbolic and chloral douches were administered three times daily; the abscess cavity then emptied and healed.

Chattelier recalled two similar cases which he believed to be due to glandular retention crypts.

Rouault had a number of such cases and held that the fistula must be carefully sought by pressing upon the anterior pillar from below upwards, or *vice versa*, with a blunt probe, when a drop of foetid pus will usually be seen in the orifice of a fistulous tract. These were all chronic peri-tonsilar abscesses, five of which occurred in women of from twenty to thirty-five years of age, in whom the fistula opened in the thickness of the arch of the palate. This variety of chronic abscess of the palate, he believed, had never before been described.

Saint Hillaire had seen many fistulas of the tonsils and of the peri-tonsilar tissue; he deemed the former easily cured by extirpation of the gland, while the latter he found exceedingly stubborn—some are so deep it is impossible to open completely by means of a bistoury.

Chappel, of New York, cited ten cases

wherein haemorrhage was a sequel to peri-tonsilar abscess; the bleeding occurred some days after spontaneous evacuation. Eight of these had a fatal termination, while two were saved only by ligating the common carotid: One case bled five days after incision had been made that evacuated one-half ounce of pus from an accumulation in the posterior pillar. An incision through the anterior pillar and washing and packing of the pharyngo-maxillary space usually led to recovery, though not without rheumatic complications, which were evidences of metastatic invasion.

Recurring abscesses are mostly situate within the pharyngo-maxillary space. The danger and gravity arising from abscesses and erosion of the vessels of the neck can not be too greatly emphasized, since the pus may burrow along the walls of the latter and thus reach the mediastinal space. Cobb, of Boston, believes that the styloglossus and stylo-pharyngeal muscles form a diaphragm for the protection of the great vessels of the neck from infection, and to uphold his claim demonstrated this fact on the cadaver by injections of cacao butter; he showed at the same time that the space is made up of loose connective tissue and fat cells, into which he was able to force four drachms of the butter. That this space is in close relation to both tonsil and fossa, and that it nearly always contains purulent fluid, is apparently evidenced by the extreme bulging of the region of the soft palate. This tumefaction is apt to prove most misleading as it merely differentiates the highest point of the abscess cavity and not the spot where is the greatest accumulation of pus; consequently the classical incision midway above the superior arch is in these cases ineffective.

In two cases wherein I was summoned late, I incised the abscess at its lowest point, which was near the wisdom tooth of the lower jaw.

When an incision is made, it should be by means of sterilized instruments in order to prevent mixed infection, and frequently

the abscess is due to the action of one species of germ alone. Leland's method of using the sterilized finger after incision with a view of tearing the tonsilar tissue and thus reaching the pus-sac, seems a painful (and withal in hard tonsil is an impossible) procedure, but it has the advantage of locating the direction of the abscess and is free from the danger of wounding the branch of the ascending pharyngeal artery in the anterior pillar of the fauces. Instruments of a blunt character, as employed by Pierce and Kyle, permit of opening the supra-tonsil fossa without danger to this blood-vessel.

To avoid recurrence of peri-tonsil abscess, it is essential the abscess cavity be irrigated and drainage established from its most dependant part. It is my experience that while tonsilotomy and igni-puncture may hinder recurrence, such is not always infallible. Radical excision of the upper part of the tonsils, removal of plica triangularis, and breaking up of adhesions wherever the channels of drainage are obstructed, are to be recommended. Sometimes curettment of the fossa, followed by an application of trichlor-acetic acid, is sufficient. Obliteration of the crypts of tonsils is best accomplished by extirpating the entire gland, although the punch forceps have proved of great utility in my hands in cases where but a few crypts were diseased. I have employed the galvano-cautery loop and cautery knife with good effect in some instances, and thus rendered the operations practically bloodless; the use of supra-renal extract also aided to free the field of operation from sanguineous effusion. Operations upon the plica are more painful than upon the tonsil, but the topical application of a ten per cent. solution of eucaine and infiltration of the tissue by Schleich's mixture, will mitigate the pain sufficiently for all practical purposes. When adhesions of the apex of tonsil are deep in the floor of the fossa, and firm to the semilunar margin of the anterior pillar, two vertical incisions may be made, one between the anterior pillar and the tonsil, and

the other between the tonsil and the posterior pillar, extending well up into the soft palate; the gland can then be seized and dragged to the median line where a horizontal incision severs it, when the remaining lymphoid tissue may be removed by the scissors—an operation that leaves the supra-tonsil orifice wide open.

The pathology of acute septic inflammation renders it unlikely that drugs can be of much value in the management of these maladies. Sometimes, if seen early, they may be aborted by a liberal dose of mercurous chloride—such is always indicated in suppurations—followed by the administration of tincture of veratrum or tincture aconite (which may also be combined or given alternately) every half hour, in one-half minim doses, until a relaxing effect upon the arteries obtains and full diaphoresis is established. Local scarification and topical application of heat will assist in reducing the congestion and in dispersing the accumulated fluids, but after twelve hours treatment, if no abatement of inflammation is had, medication should give way to operative processes: The local application of heat and inhalation of vapors, together with rest in bed, are of extreme value. Gargling is too painful a process to recommend, but a local spray of four per cent. solution cocaine is grateful whenever the pain is intolerable. All else failing, on the third or fourth day an incision may be made under local anaesthesia at the lowest point of tumefaction, which will co-operate with the advancing suppuration and favor an early termination of the abscess.

In summarizing I would emphasize:

That the obstruction of the orifice of the supra-tonsil fossa and the orifices of the crypts of the tonsils, predisposes to circumtonsil suppuration directly and, any vulnerable part of the organism remotely:

Early incision at point of origin, which is usually within the supra-tonsil fossæ, or within the crypts of the tonsils:

Chronic latent tonsilar abscesses may ini-

tiate an infection developing pneumonia, pleurisy, pyæmia, or septicæmia:

That the coccus variety of germs may be temporarily encapsuled within a wall of connective tissue:

That articular rheumatism, consecutive to tonsilitis, is a suppurative process produced by invasion of cocci through lymph or blood channels:

That uric-acidæmia does not cause suppuration, but may predispose thereto.

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SCOLIOSIS.

BY L. P. ANDERSON, M. D.

Every permanent, side curvature of the vertebral column is a scoliosis, an affliction that is classified according to its initial cause: If it is an affection of the muscles, it is termed *Scoliosis muscularis*; if it depends upon a lesion of the bony structure of the spinal column, it is *S. ossicularis*. Other classifications, almost without number, have been made, but the two foregoing appear the simplest, most comprehensive, and most practical. Whether the curvature is due primarily to disease of the muscles or of the bones, either one of these may become affected secondarily if the initial lesion is not early relieved.

This is a most insidious affection, and often quite difficult to differentiate and to diagnose at its outset. As its early treatment, next to prophylaxis, is of the greatest importance, the slightest asymmetry as to shoulder blades or to the hips, should constitute sufficient reason for careful examination in order to ascertain if a deviation from the normal exists in either the dorsal or lumbar portion of the spinal column. By careful inspection and palpation, together with mensuration of the corresponding parts of the trunk, pelvis and extremities, one should be able to discover scoliosis even in its infancy.

Some authors—Jalade-Lafond, Sabatier, Buring, and Bouvier, among others,—claim that a physiological right-lateral curvature exists normally in some of the dorsal verte-

brae; and the two former assert this physiological curvature is due to the pulsations of the aorta descendens, though Buring believes it is caused by the heart impulse. It has, however, been impossible to conclusively establish as a fact that such normal curvature exists, and consequently all lateral curvatures of the vertebral column must be regarded, at least for the present, as pathological.

The progress of scoliosis is very definite and from a pathological stand-point may be divided into three stages:

As soon as the lateral curve appears in any part of the column or (as is most common) in the dorsal or lumbar region, the disease is in its first stage. The characteristic signs are: The patient is temporarily able to voluntarily and independently keep the spinal column erect: It also straightens itself spontaneously when the horizontal position is assumed. The curvature is pathological, and there is no reason why this stage should be denominated a "disposition" or "tendency" to scoliosis.

The primary curvature is followed, sooner or later, by a compensation curvature, and with the development of the latter the disease has reached its second stage, an irregular S-shape; but frequently there is a further compensation curvature in the cervical and sacral regions causing the spine to assume a wave-like appearance. Characteristic of this stage, is the rotation of the vertebrae on their long axes, with the bodies thereof turned toward the convexity, and the spinous processes toward the concavity.

With the permanent curvature and rotation follows a change in the shape of both the intervertebral discs and the bodies of the vertebrae, together with a change in position of the ribs, collar-bone, and shoulder blades.—With these changes the scoliosis has entered its third stage.

The time required for the development of the deformity varies in different persons and depends, presumably, in part upon surrounding circumstances, and partly on the

qualitative condition of the cartilages and bones in the different individuals.

The pathological changes in the vertebrae and intervertebral discs, consist of a wedge-shaped compression, the base pointing toward the convexity; in some cases, the cartilages on the concave side are found entirely wanting, and there is synostosis of the vertebrae. On post-mortem, the muscles on the convex side are thin and pale, and the muscle fibres are often interposed with a considerable amount of fibro-cellular substance. They may also frequently undergo fatty degeneration and some of the fibres lose their striæ, while on the concave side, the muscles are contracted, thick, well nourished, and of normal color.

The disease presents, as a rule, definite and uniform symptoms. Of 574 cases of S-shaped scoliosis examined by Hartelius, of Stockholm, only five presented an upper curvature with the convexity towards the left and the lower curvature towards the right. This tends to show that the malady almost uniformly presents the superior curve towards the right, and the inferior towards the left.

Owing to the uniformity of the symptoms, one would naturally suppose that the causes must always present a certain amount of similarity, at least as regards their mode of action; but here, again, a great diversity of opinions obtain, due, apparently, to the fact that some consider the passive parts (bone, cartilage, and ligaments) the most important factors in the maintenance of equilibrium of the spinal column, others, the active parts (the muscles).

The supposition that very little power is needed to keep the spinal column erect, very naturally leads one to place lesions of the passive parts as the most important causative factors in this affliction, but to accord the muscles a subordinate position is, however, contrary to every-day experience. Why do the weak sink and fail, if not on account of their debilitated muscles; and why are the aged not able to hold themselves erect unless the muscular power is diminished?

That an affection of the muscles is a principal, if not the chief, factor in the large majority of cases, seems self-evident. Hyrtl* says:

Just as long as the spinal muscles retain their physiological antagonism, just so long is a permanent lateral curvature impossible.

Heredity, in this as in many other diseases, is a prominent predisposing factor, and statistics show this cause in twenty-five per cent. of all cases.—In 254 cases definitely traced to hereditary disposition, 249 had inherited the tendency from the maternal, and only five from the paternal side. Yet, heredity is not, *per se*, a sufficient cause of, but rather a disposition to, scoliosis, because the uniformity of the curvature pre-supposes a definite causative factor.

Rachitis is essentially a disease of mal-nutrition and characterized by deformity, chiefly of the osseous components of the skull and the long bones of the lower extremities, and it is therefore not reasonable to suppose that it is an important factor; furthermore, this malady seldom asserts itself after the sixth or seventh year, whereas scoliosis hardly ever commences until a later period in life.—Between the ages of eleven and seventeen the latter is most common.

The greater frequency of the disease among females conclusively proves that sex is a pre-disposing factor; women, according to statistics, constitute ninety per cent. of all scoliotic patients.

Swelling of the intervertebral discs and laxity of the ligaments have, by some authors, been considered a cause, but before this can be accepted it must be explained why the intervertebral discs, nearly always, swell on the right side in the dorsal-, and on the left in the lumbar-region.

That pleuritic exudate sometimes is a positive cause cannot be denied, but it is so rare that it may be considered accidental, rather than otherwise.

**Handbuch der Topograph. Anatomie, Wien.*
1872.

Stromeyer* assumes that the majority of cases are due to paralysis of certain muscles of inspiration, but the acceptance of this theory would lead us to very strange conclusions regarding the nature of paralysis in general. Compensatory scoliosis appears very seldom before the seventh year, and rarely in boys, hence if we accept Stromeyer's theory, we must also assume that, paralysis very seldom attacks the respiratory muscles before the seventh year, and that even later it much more infrequently attacks the respiratory muscles of boys than of girls,—for all of which there is not the slightest ground.

If the muscles on one side are attacked by some painful affection, rheumatism for instance, the natural tendency of the patient is to keep these as nearly passive as possible, and as the muscles on the unaffected side are thereby un-antagonized, a curvature of the spine results with the concavity on the healthy side. This, however, is a rare cause of scoliosis.

Authors describe two forms of pathological muscular contraction: Blassius† describes a pathological, permanent, but extensible contraction of the muscles of one side, as the cause of scoliosis.—Through an abnormal activity in the nervous system, a contraction of the muscles of one side takes place and thereby causes deviation in the spinal column. The other form, the pathological, inextensible contraction of the muscles on one side, is accepted by Guerin‡ as the cause. That certain forms of inflammation sometimes produce retraction or inextensible contraction, is true—*torticollis*, for instance, is thus often caused,—but to accept it as a universal or even general cause is contrary to both experience and any logical process of theoretical reasoning. The definite form exhibited in nearly all cases, is proof positive of the error of this assumption.

*Uber-paralysis der inspirationmusk., Hanover, 1836.

†Virchow Archives X Jahrg., 2 Hefte, über "Stabiliteteneuros."

‡Rapports sur les traitements orthopedique.

tion, because no tangible reason exists why this pathological process should always appear in the same location. Another argument against this hypothesis is: If this theory is correct, a subcutaneous section of the contracted muscles would be followed by happy results, yet, Diffenbach, who was a strong advocate of myotomy and tenotomy, declares this operation is contra-indicated in scoliosis.

Laxity and extension of the muscles of one side is an important factor in the causation and pathogenesis of scoliosis. If it is a physiological truth that equilibrium between the muscles of the two lateral halves of the trunk is essential in order to maintain the spinal column erect, then it follows as an equal pathological necessity that, when the muscles on one side are abnormally lax, while those of the other side are normal, a curvature must result with the convexity on the atonic side, and as the muscles cannot spontaneously extend, those on the concave side will remain contracted. But what is the cause of the muscular weakness on one side always?

Compensation curvature seldom appears before the sixth to the eighth year, and assumes definite form, with the upper curvature to the right and the lower to the left, in such an overwhelming number of cases that any deviation from this must be considered exceptional. These undeniable facts warrant a conclusion that a common cause or influence does exist and we must seek the solution in a practical way.

If is observed a person writing, in the usual position at a table, with the back denuded, it will be noticed that the right arm with its elbow is considerably separated from its corresponding side, and that the vertebral column is bent laterally in the dorsal region, with the convexity to the right; this is most noticeable in the weak and debilitated. This faulty position exists in schools and colleges, if not generally, at least frequently. This temporary curvature passes into a permanent one in a comparatively

small number of individuals, because the spinal column resists for a longer or shorter period the establishment of this unnatural position; but if a pre-disposition exists, then the temporary curvature readily and quickly becomes permanent. Any position assumed often, soon becomes habitual and the muscles become dependent on and accommodate themselves to, the condition. The habitual position is in all opportunities the same, and it is readily seen how this may be a sufficient cause to produce scoliosis.

As negative proof of the theory, that a false position may give rise to permanent curvature, may be cited the fact that this deformity is absent in uncivilized people.

Predominant use of the right arm is, no doubt, an auxiliary cause of the usual typical curvature. Some authors assume that the use of the right arm more than the left develops the muscles on the dexter side of the spine more than those of the sinister, and pulls the vertebrae towards the former side. This appears reasonable enough to the casual investigator, but is contradicted by pathological facts.—If the foregoing assumption is correct, then the aim of treatment would be to strengthen the muscles on the concave side, but these, on post mortem, are found to be healthy, and even excessively developed.

The greater use of the right arm is not a direct cause of scoliosis, but its influence is therefore none the less. Look at conditions as they exist: If a weight is lifted by the right arm, the muscles on the left side must contract in order to bring the point of gravity towards the center of the base, and a temporary curve of the spine results. Here is observed an operative force similar to that seen in the faulty position and, if we stop to reflect, we will find, in every day duties, plenty of like illustrations corroborating the correctness of this reasoning.

The habit of resting on one foot may also give rise to scoliosis in those pre-disposed to this affection. Hip disease, pleuritic exudate,

muscular inflammations, osteomalacia, cicatrical contractions, etc., are only accidental causes, and comparatively seldom met with.

The prognosis in the first and second stage is always favorable; but in the third stage, it must be remembered it is impossible to entirely restore the normal appearance of the spine and chest.

In treatment the aim should be to extend the contracted muscles and develop and strengthen those that are weakened. A mechanical appliance might be made to accomplish the extension, but as it cannot induce strength in the weakened muscles, it lacks the most important requisite for a cure. Another agency must, therefore, be invoked, one possessing the two requisite qualities, and this is found in appropriate medical gymnastics. By certain well adapted movements it is possible to extend and straighten the vertebral column, as far as can be done by any external mechanical force, hence this fulfills the first requisite, viz., *extension*. For the development of strength in a weakened or pathologically changed muscle, only three agencies are available, namely, Exercise, Massage, and Electricity: Of these, Exercise, wherever possible, is the most effectual, but it may further the progress of treatment to employ all of these agents.

In simple scoliosis, active single movements are all that is necessary to correct the deformity, together with the regulation of faulty hygienic conditions.

In compensatory scoliosis should be employed passive-active and active-passive duplex movements, together with massage and electricity and, possibly, some mechanical support.

In the third stage of the disease where there is rotation and deformity of the vertebrae and ribs, a mechanical support is absolutely necessary, together with the means employed in the treatment of the second stage. Of the mechanical supports, the perforated corset is the only one which fully meets the requirements; this may be removed when the patient is treated and when

he retires at night. The braces and appliances as commonly made by orthopedic manufacturers are generally worse than useless.

Scoliosis produced by accidental causes requires special treatment in addition to the foregoing: When lateral curvature of the spine results from inequality in length of the lower extremities, the first indication is to elevate the shoe of the short side, and thus bring the plane of the iliac crests at a right angle to the axis of the vertebral column. When scoliosis is due to superficial cicatricial contractions, these should be divided. When the primary cause is muscular inflammation resulting in subsequently inextensible contraction of the affected muscles, myotomy of the contracted muscles is indicated as a first step in the correction of the deformity.

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THE MISSING LINK.

The Theory of Evolution has undoubtedly had a greater influence upon modern thought than any other scientific theory. There has been but one thing necessary for its universal acceptance—the discovery of the “missing link.” A few years ago the scientific world was startled by the announcement that this had been discovered. Ray Stannard Baker, in an article in *McClure's Magazine* for August, has given the details of this discovery, together with a concise and lucid account of the development of Darwin's masterful conception. Last year Haeckel departed for Java to engage in further investigation in this field, and the article deals largely with the life, work, and personality of this famous scientist. Among the illustrations, there is a most interesting diagram clearly illustrating Haeckel's Theory of Evolution. Here is shown the twenty-five stages through which man has descended—he has developed from a mere atom, through fish, reptiles, monkeys, into the thinking being he is.

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

DR. G. ARCHIE STOCKWELL, Editor.

—ISSUED BY—

THE J. F. HARTZ CO.,
Publishers, Booksellers and Importers.

NOTE.—The management cannot undertake to return rejected manuscripts unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, at 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., AUGUST 1901.

Editorial.

CROWDED OUT.

Owing to the importance of the contributions appearing in our Original columns, and the amount of Editorial matter, we have been obliged to wholly omit the Department of Correspondence in this issue. Inasmuch as the latter was greatly in excess in July, it may now be fairly considered as balanced.

KOCH'S LATEST ANNOUNCEMENT.

At the recent session of the Tuberculosis Congress, in London, the Berlin scientist announced as a new, definite and personal discovery, the non-identity of bovine and human tuberculosis, adding that these are not only two distinct pathological entities, but that neither can by any possibility induce the other.

This Rip-van-Winkleish communication embraces two somewhat belated facts,—facts that have long been recognized by the foremost pathologists of Great Britain and America. A little less than twenty years ago there appeared in the “Proceedings of the London Medical Society”* the following from the well known pathologist, Doctor Heneage Gibbes:

As far as I have gone into the subject I have found a marked difference between bovine and human tubercle.

*Volume vi, page 315; December 4th., 1882.

This was further corroborated by Klein in 1883* in the declaration:

Although this question of the relation of the tubercle bacilli to tubercles may be regarded after these researches to be placed on a firm basis and worked out in its general outlines, it did not seem to me to be quite complete in the details as is generally accepted. Thus, for instance, it did not seem to me clear that human and bovine tuberculosis are exactly identical. . . . These points then were open for investigation, and a great number of experiments were undertaken under my direction by Doctor Heneage Gibbes. . . .

And again on page 185:

It appears to me justified from these experiments that the tubercular virus derived from the human subject is not the same as that derived from the tubercles of the cow, and I base this distinction on the fact the tubercle bacilli present in the human tubercles are morphologically different from those in the cow's tubercles; that although the guinea pig is susceptible in a similar degree to both the human and bovine virus, there is, nevertheless, a marked contrast between the two as regards the rabbit, for while the human virus does not as a rule induce general tuberculosis, that of the cow produces a very high degree of general tuberculosis, in which even the kidneys play a prominent part.

A year later† appeared the statement:

Among these researches, the foremost (of the year) in point of pathological importance . . . is that by Doctors Klein and Heneage Gibbes on the Mechanism of Tubercle Communication, . . . it having been proved that tubercular matter containing bacilli, and derived on the one hand from human, and on the other hand from bovine sources . . . produces in each of the creatures the identical disease with the identical differential peculiarities that would have resulted from inoculation from the same source into the same animal.

On page 172 these researches are summarized by Doctor Gibbes as follows:

It would appear then that, although guinea-pigs are affected by both bovine and by human tubercular matter, they are more susceptible to the human than to the bovine tu-

bercle. Rabbits, on the other hand, show a very much greater susceptibility to bovine than to human tubercle: Whether fed or inoculated with human tubercular matter, the result was much the same; the lungs were the only organs affected, and there was a great scarcity of tubercular bacilli, but bovine tubercular matter always produced in them general tuberculosis with an abundance of bacilli.

Turning now to Klein's work on Micro-organisms and Disease,* confessedly the most complete and erudite work in its class at that date, on page 170 is found the definite statement:

According to my own experience, extending over a very large number of cases of human miliary tuberculosis, and tuberculosis in cattle, I can not for a moment accept the statement that the bacilli found in the two affections are identical, for I find that in the two diseases their morphological characters and distribution are very different. The bacilli of human tuberculosis are conspicuously larger than those of the tuberculosis of cattle, and in many instances more regularly granular. . . . The bacilli in the tubercular deposits of cattle are always contained in cells; the larger the cell, the more numerous the bacilli.

Looking now to Cis-Atlantic publications, it is discovered these researches, as far as one author is concerned, have been transplanted to American ground. Doctor Heneage Gibbes† affords evidence that appears wholly conclusive:

In monkeys I have never seen the kidneys affected from inoculation of human tubercular matter from any source. In inoculation experiments upon rabbits with bovine tubercular material, the results were very different. In every case a marked general tuberculosis was produced with large masses of caseation containing numerous bacilli. In connection with these animals is this: In every case inoculation with bovine tubercular material the kidneys shared the fate of other organs, and presented to the naked eye a surface studded with tubercular projections, which on examination proved to be caseous and full of bacilli.

There is still another point of difference between human and bovine tuberculosis. . . . After eighteen years in spirit the tubercular

*Thirteenth Annual Report of the Local Government Board; London, 1884, page 177.

†Fourteenth Annual Report of the Local Government Board; London, 1885, page xxxi.—Editorial Announcement by Doctor Sir George Buchanan.

*Third Edition, 1886.

†American Journal of the Medical Sciences; August, 1890.

bacilli in the human lung still retain their characteristic reaction. In the cow's lung, hardened in the same manner, I found that four or five years in spirit entirely removes this property and I can not get any reaction from the bacilli.

The monograph of Doctor Theobald Smith* embodying special personal researches, is in every way corroborative of the foregoing. Further† this author unreservedly asserts that though tubercular bacilli derived from a human source are incapable of retaining a permanent foothold in the bovine body, the tubercular germ derived primarily from the latter may induce, owing to its "higher pathogenic power", a general tuberculosis within the human economy; and that, therefore, "it would be reckless too a degree to relax in any respect our efforts to control tuberculosis in cattle."

Koch's intimation that either bovine tubercle, or human tubercle, when transplanted, either through ingestion or inoculation, produces its own kind only, is undoubtedly morphologically true; but then the tale is only half told. He also asserted that bovine tuberculosis has no infective power as regards the human race—a statement that will rejoice the butchers and dairy people exceedingly. Says the London Correspondent of the *Medical News*,‡ the effect of this statement upon the Congress can only be "compared to that of a dynamite explosior."

The airy way in which Koch asked the medical world to receive a new doctrine, erected on the flimsiest basis of fact, is a remarkable illustration of the degeneration by which he has been overtaken: It is too clear that success has turned his head, and that he cares more for "staggering" than for instructing humanity. His startling declaration that precautions against the use of tuberculous milk and meat are useless, was delivered with the calm assurance of an infallible pope promulgating a dogma which the faithful are to receive on pain

of damnation. His views were severely criticised by Lord Lister. . . . Professor Nocard, who spoke afterwards, contrived, with the art of a consummate actor, to overwhelm Koch with compliments, while conveying plainly that he considered the sensational statements, not mistakes, but *deliberate lies!* Koch's views find little or no acceptance among English men of science, and they are almost universally rejected by his own countrymen.

According to the official *Berliner Correspondenz* of *The Times*, (London)* the claims advanced by Koch were already known to the German Government, which declined to accept them, and specifically announced:

There is at present no ground for modifying the precautions which are taken to prevent the spread of tuberculosis by meats, milk and butter.

So too, Virchow, in the last issue of the *Berliner Klinische Wochenschrift*† declares he has long recognized the non-identity of human and bovine tuberculosis, a fact that was treated with contempt by the Koch school who deemed the discovery of the *Bacillus tuberculosis* proved the contrary. As to the transmissibility of either, it has been conclusively proved that:

Infective material from human sources does not produce any symptoms in animals similar to cattle tuberculosis; also Koch has gone a little too far in excluding all those cases in which cattle tuberculosis might have been transmitted by food. Occasionally such a case has been observed in the Charité, and preparations have been collected showing unusual foci of peritoneal tuberculosis, with such enormous ramifications as are seldom found in man.

The fact is, that bovine tuberculosis is likely to exhibit greater virulence, when transplanted to man, than human tuberculosis, in evidence whereof we have the experiences of Klein and Gibbes:‡

**British Medical Journal*, August 10th., 1901,
p. 362.

† *Ibid.*

‡ Fourteenth Annual Report of the Local Government Board; Report of the Medical Officer; London, 1885, page 172.

**Journal of Experimental Medicines*, vol. iii,
p. 451.

† *Ibid.* p. 498.

‡ August 10th, 1901, p. 232.

It will be seen that the effect of feeding . . . tubercular matter differs little from that obtained by inoculation . . . though a general tuberculosis was produced, the process did not seem to be so rapid as when the tubercular matter was inoculated into the system.

* *

The foregoing recalls another peculiar fact, viz., that the announcement by Koch of the comma bacillus as the germ of cholera was another belated "discovery (?)"

On investigation, this germ was proved, by Surgeon-Major Timothy Richards Lewis (of the British Army Medical Service, and a Professor at the Army Medical School, Netley), to be an ordinary everyday spirillum, discovered by him nearly a dozen years before, during his researches into the ætiology of cholera*, and subsequently found to be common not only to the tanks and pools of India and Egypt, but even to the ponds, lakes and waterways of Europe, and moreover rarely absent from the oral cavities of healthy beings. Furthermore the very slides from which Koch first demonstrated the comma bacillus, were furnished him by Doctor Lewis. From the pen of the latter, in *The Lancet* (London), and in his Physiological and Pathological Researches† appeared the following:

So far, therefore, the selection of the comma-shaped bacillus as the *materies morbi* of cholera appears to be entirely arbitrary. Doctor Koch and his colleagues have produced no evidence to show that it is more pernicious than any other microbe; indeed, as a matter of fact, the sole argument of any weight which has been

brought forward . . . is the circumstance it is more or less prevalent in every case of the disease, and that the German Cholera Commission had not succeeded in finding any other.

In reply to this Koch declared such view to be "untenable" inasmuch as it would have to be assumed

. . . that the alimentary canal of a person stricken with cholera must have already contained these bacteria; and seeing that they have been invariably found in a comparatively large number of cases of the disease in Egypt and India, it would be necessary to assume further that every individual must harbor them in his system. This, however, cannot be the case, . . . the comma-like bacilli are never found except in cases of cholera.

To this Doctors Lewis and Cunningham retort* if Koch and his colleagues had submitted the secretions of the mouth and fauces—the very commencement of the alimentary canal—to careful microscopical examination of the same kind as that to which they submitted the alvine discharges,

. . . we feel persuaded that such a sentence would not have been written, seeing that comma-shaped bacilli, identical in size and form, and in reaction to anilin dyes, with those found in cholera dejecta, are ordinarily present in the mouth of perfectly healthy persons.

The German *savant* subsequently admitted the foregoing as being technically correct, but while declaring his familiarity with the comma bacillus of the mouth, asserted that it differed from his cholera bacillus in "being longer, more slender and not so blunt at the ends," etc. Whereupon Doctors T. R. Lewis, Douglas Cunningham, Arthur E. Brown, Professor Ray Linkster, Sir William Aitken, Surgeon General J. M. Cunningham, and other distinguished authorities proved the identity of the organism by accurate tests and measurements applied to colonies taken, from the mouths of healthy human beings ranging from four to fifty years of age; from the alvine discharges

*Surgeon-Major Lewis and Surgeon-Major D. D. Cunningham, were engaged, by order of the British Government, upon this special service, which extended over a period of eleven years, consequently no one was in better position to speak authoritatively upon this topic; whereas Koch, when he began his investigations, was badly handicapped by inexperience and a life-long residence in a country which—for some years at least, and certainly not during his medical career—had not suffered from an epidemic of this character.

†London, 1880.

*Physiological and Pathological Researches, London, 1880.

of cholera-affected persons; from the intestines of persons who had died of cholera; from cultivations of all three in agar-agar jelly, in weakly alkaline peptone, gelatine, etc., and by the reaction of all to staining fluids—fuchsin, gentian-violet, methylen-blue, etc.

Towards the close of 1884 the India Council established a Commission to report on the claims of Koch: this was composed of Doctor Heneage Gibbes, of London, and Doctor Douglas Cunningham, of Calcutta; subsequently, by request of the Royal Society, Doctor Klein was added. The investigations, made on Indian soil, were everyway corroborative of the negative character of Koch's comma bacillus. Fifty-four autopsies, made immediately after death from cholera, demonstrated the presence of this bacillus in *only three* instances! and it may here be remarked Koch's post-mortems were never made until at least twenty-four hours had elapsed, which in a climate like that of India would permit of the development of myriads of any one species from the accidental presence of a single germ. The self same tank, moreover, that played such an important part in Koch's report, was visited by the Commission on November 26th, and which furnished the sole water supply of some 200 natives. Here comma bacilli identical with those found in choleraic dejecta overwhelmingly obtained; and yet, notwithstanding a single case of cholera occurred in this community, and the extended use of the water, not another person contracted the disease. Another tank, even richer in bacilli than this, failed to develop during an entire year a single case among the people that were supplied with its polluted waters.*

On return to London a report was submitted to a Committee appointed by the Indian Government, and it may be of inter-

est to know that it received the endorsement of all the members, viz.: Sir William Gull, Doctor Marston and Doctor Norman Chevers.

Further, during a subsequent and independent investigation D. D. Cunningham found fourteen different kinds of comma bacilli in the dejections of sixteen consecutive cholera patients, that of Koch "being very far from the most numerous of the lot." Lewis, too, found the Koch bacillus most abundant in the drinking waters of India during the seasons when there was absolute freedom from cholera; and M. Neller* observed the bacillus of the Hamburg cholera epidemic to differ markedly from that claimed by Koch to have been discovered in Egypt and Hindustan, "in that it is thicker, shorter and larger than the latter, causes turbidity of bouillon, and in peptonized gelatine grows more rapidly"; it was found in twenty-nine cases of cholera (also in the sputum of bronchopneumonia), and in thirty additional cholera cases it was wholly absent.

Further, Koch declared† that "comma bacilli extraordinarily easy die when they are dried"; and "for the spread of the infective material the main condition is that the dejection should remain in a moist state, for as soon as they dry up they lose their activity." Laboratory experiments and experience also have demonstrated these bacilli are among the most sensitive and non-resistant of organisms of their class. Again, Mariano Semmola, admittedly one of the most earnest and profound pathologists of the Nineteenth Century, referring to the comma bacillus, and Koch's published experiments, remarked he could not comprehend "how true clinicians can accept as of practical value results that are established solely in the laboratory."

*An Inquiry into the Etiology of Asiatic Cholera, London 1885. Published by the Secretary of State for India.

**Le Progres Medicale*, 1892.

†Report of July, 1884.

That Koch's claims were, and are, accepted without due caution, is perhaps due to the fact that Americans are only too prone to receive as fact any loose statement that emanates from German sources. Only in May last, before the Michigan State Medical Society, the author of the "Annual Oration" fell into this error when he declared that cholera is "a malady now, fortunately, by the efforts of science, robbed of its terrors."

Pettenkofer conclusively proved the non-identity of the artificial flux set up by the comma-bacillus with that of cholera; and it is now, moreover, generally recognized that the "Eastern scourge" is not the result of pathological changes induced within the digestive tract, but due to a subtle poison affecting the nerve centres*, manifesting itself chiefly through the solar plexus; that it may rise from development and absorption of ptomaines perhaps, but more often, especially in epidemics, has a psychic origin.

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* *

Passing strange is the egoism manifested by the majority of those scientists of Germany who pose, on this side of the Atlantic at least, as "authority." Without any desire to appear captious or to "ape the carping critic" we can not but remark the haughty indifference and arrogant assumption displayed towards all literature and scientific investigations that do not originate in the "Fatherland." It is this peculiarity that gave rise to the following caustic remark of a French scientist, in a communication to the editor of this Journal, when about to visit Berlin:

I am going to Germany—where they know so much and accomplish so little.

This calm assumption of superiority and supremacy, entirely out of proportion to the results obtained, strange to

say has been generally acquiesced in, so far as the United States is concerned, which country by the servility of the profession at large has thus become the most fruitful source of income to *Deutsch* charlatany. Therapeutic products are unloaded in the Western Hemisphere of such low and inferior qualities and grades they are not permitted to be offered for sale at home. Again there is no such thing as reciprocity in medicine or medical education between Germany and the United States; American practitioners who do not pose as students are not even tolerated or courteously received in most quarters; only his *geit* renders each *persona grata*. There are no civilized countries on the face of the globe wherein pathology has so little bearing upon the action of remedies, or where therapeutics is deemed a branch of medical science utterly unworthy of serious attention and consideration (excepting perhaps to aid in foisting trademarked and patented nostrums upon obsequious American imitators and followers) as those embraced in the German Empire. No wonder *Farbenfabriken* flourish and usurp the role of manufacturing pharmacy,* or that the erudite discoverer of "tuberculin," when ill, placed himself under the ministrations of a charlatan cleric like Pastor Kneipp.

EDITORIAL NOTES.

Medical M. P.'s.—

The Canadians seem to think highly of their physicians, eighteen of whom are members of the present parliament.

Anent Noses.—

People who hold that there is an occult connection between the shape of the nose and mental characteristics will find much to confirm their opinion in the study of "Minds and Noses," which *The Living Age* for August 10th reprints from *Blackwood's Magazine*.

*Vide Flagge (*Principles and Practice of Medicine*, London, 1891) and others.

*We shall exploit this topic in a future issue.

Tuberculosis in Russia.—

Rubel recently stated, at a meeting of the Society of Hospital Physicians, that 37,000 persons (approximately twenty-five per cent. of the population) die yearly of tuberculosis in St. Petersburg.

The Deadly Quick Lunch.—

The Chicago Medical Society recently discussed the ætiology and prevention of gastric ulcer, when Doctor Andrews declared this affection resulted largely from abuse of the digestive organs, and particularly the pernicious habit of bolting lunches without proper mastication. He remarked that statistics show that gastric ulcer has increased about two hundred per cent. within the few short years of its medical history.

This should serve as a warning, not alone to medical men, but also to other busy men, who indulge in the quick-lunch habit.

A Needed Reform.—

Doctor Elmer Lee, in the *Municipal Journal and Engineer*, suggests a new method of street lighting which shall combine the names and numbers of the thoroughfares while giving space for the attachment of mail, fire and police boxes, with a drinking fountain appurtenance added. The plan is certainly practical, and carried out would prove a useful adjunct to the comfort of the public at large.

Camphor, New Source of.—

Recently the discovery is claimed that camphor (which hitherto has been regarded as a purely vegetable or synthetic product) can be produced by means of a diplopod (*Bolzonium rosarium*) found in Northern New York and existent perhaps in other parts of America. It has been ascertained that the substance which gives the odor of camphor is a milky fluid exuded from the dorsal pores, and that this not only smells but tastes like the gum. The study of the "camphor worm," which forms the subject

of a paper in a recent issue of *Science*, presents many interesting chemic and biologic problems.

Anæmic Vertigo.—

Burnett declares the rare form of vertigo which arises from local anæmia of the labyrinth, may be diagnosed by the presence of tinnitus and dull hearing and by the fact that the symptom is suppressed temporarily by the inhaling of a few minims of amyl nitrite after eating.

Photo-Therapy.—

Doctor Neils Finsen, of Copenhagen, is the originator of a system of photo-therapy that bears his name. This embraces the application of sun-light to the treatment of diseases of the skin—lupus, ulcers and many other affections—which he believes can be rendered more effective than through the Roëntgen rays.

Chloroform, Use of.—

The use of chloroform in England is said to be becoming less frequent than heretofore, ether having taken its place. Americans say this is because English physicians do not know how to use the drug properly.

The Obstetric Binder.—

Jewett believes a firm binder is frequently of material service in the second stage of slow labor, especially in relaxed condition of the abdominal wall, by furnishing a *point d'appui* for the intra-abdominal pressure.

Prehensile Foot of the Prostitute.—

In an old number of the *Monatshefte für Praktische Dermatologie* appears a study of the morphology of prostitutes, by Jullien, who examined fifty young women with reference to the presence of the *pes præhensilis* of Italian observers.—In this malformation there is an abnormally wide space between the great toe and the second digit. In two-thirds of the prostitutes examined the average distance between the two toes was more than an inch, and the deformity was more common on the left side.

Items and News.

Antitoxin Serum.—

The manufacture of antitoxin serum, closely examined, reveals some surprising things. In a man natural immunity is established by a process in which the bacteria take some part, while the so-called antitoxin horse-serum used for immunization of man is elaborated in the animal by some phenomena in which the microbes take no part; for the toxin injected into horses is first freed from bacteria: This is already a different thing. When to this fact is added the likewise very important consideration that the horses are tested with tuberculin, injected with tetanus antitoxin, and further inoculated with the mallein of glanders, the confusion becomes worse confounded, for surely these substances must produce some constitutional changes in the animals which are transmitted to the serum. But this is not all! Not until, to some preparations of antitoxin, an antiseptic has been added is the serum considered finished and ready for use.

When we know that many cases of diphtheria are complicated with other throat affections against which the Klebs-Loëffler antitoxin serum has no effect, and the unestablished grounds on which the whole theory rests, it should no longer seem strange that to-day many men will not use antitoxin, but rather surprise should be evinced that there still remain some one who persists in using it on the insufficient evidence brought forward in its favor.—*Medical Record.*

Wych Hazel.—

The correct name for *Hamamelis virginica* is not witch hazel, but wych hazel, a plant that has no connection with the magic of the water hunter. The black thorn of England, *Prunus spinosa*, was the wood used in these divinations or whatever such superstitious practices may be termed. Hazel had a very wide meaning in the olden times, and the elm, as well as the nut now known as such, was hazel. One of these elms, *Ulmus montana*, was the favorite wood for making *wyches* or provision chests, and was, therefore, known as the wych hazel; to-day it is known as wych elm. *Hamamelis* received from the early settlers the name of wych hazel from the resemblance of the leaves to those of the

wych hazel or elm of the Old World. Language reformers, imagining that wych should be spelled witch, are responsible for the confusion. Wych hazel is the correct term for our plant.—*Meehan's Monthly.*

Mississippi Valley Medical Association.—

The date of meeting of this body has been changed from September 10-12th to September 13-14th, and will be held at the Hotel Victory, Put-in-Bay Island, Lake Erie. The Secretary is Doctor Henry E. Tuley, 111 West Kentucky Street, Louisville, Ky.

Sale of Spirits in Russia.—

It is now five years since the Government assumed exclusive control of the manufacture and sale of alcoholic liquors. In nearly all the provinces of Russia the saloon has been supplanted by Government shops, in which a guaranteed pure article is sold in a limited quantity to each customer; none is sold to those already intoxicated. These shops are located quite a distance apart and no one is allowed to drink liquor on the premises where sold. The system is supplemented by officially appointed local committees in each large town, which are supplied with funds to establish attractive temperance restaurants, reading-rooms, etc. A portion of the enormous profits of the liquor monopoly is devoted to this purpose.—*North Carolina Medical Journal.*

A Novelty; "Scorpion Oil."—

In the lower land and towns of Switzerland, scorpion oil can be obtained at any chemist's, and these buy their scorpions direct from Italy. Every year Italian scorpion-sellers traverse Switzerland, especially the mountain valleys thereof. It is usual to take, say, a half litre of good olive or walnut oil, and throw therein about ten living scorpions, which are left until they die—say twelve or twenty-four hours; they are then taken out, or the oil poured off.

In the case of poisonous snake-bites, or poisonous "*Insektenstichen*," the wound is first, if possible, washed out with salt water: The scorpion oil is then rubbed in, and all round over the swollen part, the rubbing being towards the wound.

In the case of other "*Giechtigen, Schnitten, Stichen, Guetschungen, giechtigen Geschwürlste und dergleichen*," the oil is ap-

plied in like manner, only it is not poured into the wound, as it is too "scharpf."

The custom is centuries old. In general the application is external only; but there are those who, when suffering from great internal pain of which they do not know the cause, drink some drops of the oil in chamomile tea.—LARDEN (*Nature*).—

Montan Wax.—

Montan wax is one of the distillation products of lignite with a formula $C^{29} H^{58} O^2$, and resembles paraffin, but is more easily saponified; it is essentially, a fatty acid of an exceptionally high order, and called "Cerotonic acid."—VON BOYEN (*Scientific American*).—

Sonorousness of Aluminum.

An excellent property of aluminum is its sonorousness. The sound of an aluminum bar is not limited to a single tone, with its corresponding upper tones, but there are two different tones audible, one in the longitudinal and one in the transverse direction. This may be easily observed by hanging a bar on a thread and holding it near the ear while striking it.—*Electricity*.—

Tiliadin.—

Braëutigam has isolated from the bark of the linden tree a crystalline substance having the empiric formula $C^{21}H^{32}O^2$, and melting at 442.40° . This "Tiliadin," is quite resistent to ordinary oxydizers. The investigations so far made show that it is neither a glucoside nor a cholesterine; it has not been definitely decided, so far, however, to what class of organic compounds it belongs. The author also reports having observed vanillin in linden bark.

Vegetarianism.—

In order to be better enabled to live up to their tenets and to avoid the sight of human brutes who will slaughter helpless animals that they may indulge their taste for meat, sincere adherents of the vegetarian cult are desirous of establishing a colony far away from the wicked children of the world. To that end the president of the Vegetarian Society of America now is spending his time in the South looking for a suitable locality for such an enterprise. These no-egg, no-milk vegetarians want to flock by themselves where all sorts of fruits and nuts can be grown and where the colonists

may engage in vegetable farming, the manufacture of peanut butter, and fruit canning.—*Western Druggist*.

Late Union of Fractures.—

Fractures of the upper third of the humerus are more apt to be complicated by delayed union than those of any other portion of the economy.—*Medical Summary*.

A New Alloy.—

An alloy of magnesium and aluminum, to which the name of "magnalium" has been given, is attracting some attention on account of its combination of lightness and hardness, together with other useful qualities.—*Mining and Metallurgical Journal*.

Bacteria and Cold.—

A large variety, including the germs of typhoid fever, diphtheria, anthrax, and other pathogenic and ordinary bacilli, have been found to endure the cold of liquid air and liquid hydrogen without injury. There was no alteration, either in the appearance or growth of the bacteria, after a ten-hour exposure to this intense cold, the examination being made both microscopically and by culture. The typhoid bacillus has been known in many instances to be transmitted through ice, frozen at a temperature below zero, from the typhoid excretions thrown upon it. A not very high degree of heat, however, is sufficient to destroy their life.—*Medical Times*.

King Edward as a Medical Man.—

The King has honored the Royal Medical and Chirurgical Society by signing its roll. His Majesty is already a Fellow of both the College of Physicians and the College of Surgeons, so that he may be claimed as a "doubly qualified" member of the medical profession. By the way, people are noticing more and more his strong resemblance in face to Henry VIII, and a further coincidence is, that "Bluff King Hal" was, according to Froude, one of the best physicians of his day and the founder of the Royal College of Physicians of London, of which his descendant (for the Royal Family lays great store on its supposed possession of an infinitesimal portion of the blood of the older Kings of England) is now an ornament.—*Medical News*.

Book Reviews.

A Systematic Treatise on Materia Medica and Therapeutics. By Finley Ellingwood, M. D., Cloth 8 vo.; pp. 706; Price, \$5.00. Chicago Medical Press Co., Chicago, 1900.

We have delayed noticing this volume, which has been in our hands for some months, in order to give it very thorough examination, with the result that we esteem it one of the most valuable works on Therapeutics that has been issued in the United States during the last quarter of a century.

One notable feature is the classification of remedies adopted, based upon physiological and therapeutic action, and which renders each available for ready reference. Thus the author divides his remedies into ten groups, which include agents acting upon the Nervous System; the Heart; Respiratory Tract; the Stomach; Intestinal Glandular Organs and Intestinal Canal; the Blood; the Genito-Urinary Organs; Female Reproductive Organs; Micro-Organisms and Parasites, and finally; the Hæmostatics. This would appear not only practical but to obviate those defects which generally obtain to works on therapeutics.

A striking feature of the volume is the direct action of each remedy as applicable to distinct conditions of disease, which will certainly be most gratifying and satisfactory to the busy practitioner, or him who is just entering upon the profession. The diseases are all printed in black face type, thus reference research is facilitated.

While we may not agree unreservedly with Doctor Ellingwood regarding the action of some remedies, we nevertheless recognize the extreme value of this book, a value that obtains to no other edition devoted to modern therapeutics.

Another thing that adds to its practical utility is a consideration of pharmacy and pharmaco-nosy by Professor John Uri Lloyd, Ph. D., whose name alone is sufficient guarantee of the character of the work undertaken.

The Youth's Companion in 1901.

The ends of the earth have been laid under tribute for the 1901 volume of The Youth's Companion. Statesmen, Diplomats, Travelers, Trappers, Indian Fighters, Cow-Punchers and Self-Made Men and Women of many vocations are contributing every week to the entertainment of young and old in Companion homes. Among them are Theodore Roosevelt, who has written an article upon "The Essence of Heroism." The Secretary of the Treasury has endeavored to answer the question, "What is Money?" Frank T. Bullen, the old sailor who

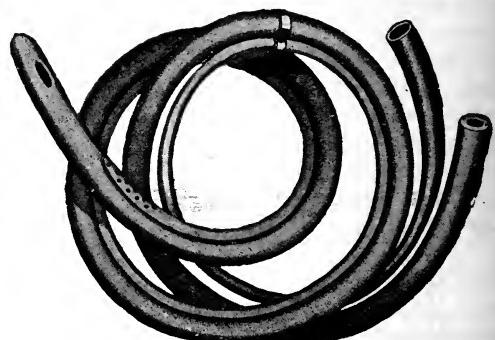
spins fascinating yarns of life at sea, has contributed a story. W. D. Howells has described the relations between "Young Contributors and Editors." Paul Leicester Ford has written about "The Man of the Dictionary"—Noah Webster. There is not space here to begin to tell of the good things already provided for readers of the new volume of The Youth's Companion—interesting, instructive, inspiring—from the pens of famous men and women. Illustrated Announcement of the current volume and sample copies of the paper sent free to any address.

New Instruments and Devices.

A new electrical device has been perfected by Doctor Tracy, of New York, which magnifies sound five times. It consists of the essential parts of an ordinary telephone, with a storage battery of four volts. The transmitter is fitted with a delicately adjusted microphone, consisting of a diaphragm and a small cup of carbon granules, each of a pin's head in size. The microphone magnifies the sound, as does the battery itself. There is also utilized an induction coil, such as is used by Doctor Pupin in his ocean telephone. By this device, it is claimed, ordinary conversation is made audible to those whose ears are deaf even to shouting.

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We present herewith a cut of a double current syphon needle spray devised by Doctor



Frank B. Walker, of Detroit, and intended more particularly for the treatment of diseases of the stomach.

This device is presumed to obviate many of the difficulties that beset the operation known as lavage. By the employment of fluid in spray form it is believed to be possible to reach the entire mucous lining of the stomach. The force of the spray can be regulated by raising or lowering the reservoir to which the smaller portion of the bifurcated tube is attached. The fluid contents are returned through the larger tube.

This is made of the very best American composition (antimony cured) rubber, and is of mauve hue.

Therapeutic Brevities.

Chian Turpentine as a Hæmostatic.—This drug has been successfully used for arresting hæmorrhage in cases of cancer of the breast and uterus, and a fair trial will be convincing of its utility in nearly every form of internal hæmorrhage. In hæmoptysis give ten grains at once and five grains thrice daily, thereafter—it is probable the hæmorrhage will be effectually repressed during the first six hours, even if it has persisted for three and four days. In a case of severe post-partum hæmorrhage, two ten grain doses were sufficient, and there was no recurrence. For an old lady with cancer of the cervix, which bled profusely about once a month for nearly a year, ten grains were ordered thrice daily for a week, then five grains four times a day for the next week, and lastly five grains twice daily till the end of a month, and for seven months there was not the slightest sign of hæmorrhage. So, too, ten grains were given successfully every four hours to a patient suffering from hæmoptysis due to a liver abscess bursting into the right lung. Here ergot hypodermatically had failed.

To an old Mohamedan woman, suffering with sloughing cancer of the breast, ten grains thrice daily, caused both the hæmorrhage and pain to disappear, though the bleeding came on again after some days; nevertheless, the drug continued to prove effective on every occasion when employed, and contributed not a little to her comfort throughout the balance of her days. It is the only agent that will successfully control the epistaxis of "bleeders."

The turpentine, moreover, in painful cancers, uterine and mammary, is found to act as an anodyne, the patients themselves ascribing their relief to it.

The drug ought to be given a fair trial as a hæmostatic and an anodyne as it will relieve, temporarily, the sufferings and anxiety of many an unhappy patient, if nothing more.—JAMES, (*Indian Medical Record.*)

Dangers of Hair Dye.—A case of acute dermatitis was found to originate in the use of hair-dye, the base of which was hydrochlorate of paraphenylenediamine. The eruption covered the forehead, which was red and shiny, with a few vesicles near the margin of the hair, the eye-lids, the ears, the nose, and cheek, and the flexor and ex-

tensor surfaces of the forearms. The anterior and inner sides of the thighs were covered with numerous small slightly elevated papules and a few vesicles. The patient complained of a prickling sensation and an uncomfortable tension of the face.—CATHELINEAU (*Bulletin Commercial.*)

The Camphor-Eater.—It is surprising what a number of camphor-eaters there are amongst the well-to-do classes. The idea seems to prevail that this gum, taken in small and regular doses, gives a peculiarly clear creaminess of complexion, and scores of young women buy it for this purpose. The habit is, moreover, very difficult to cast off, for camphor produces a mild form of exhilaration and stupefaction; and in many instances where very large doses have been swallowed, the habit has become a sort of slavery. These camphor-eaters all have a dreamy, dazed and very listless air, and in most of them there is an ever-present longing to sleep, or, at least, to rest. Extreme weakness generally follows the taking of regular doses; and I have seen cases where it has been almost difficult to tell the effects from those of alcohol. As to the complexion—if a ghastly pallor be an improvement, camphor certainly produces it.—*The Clinic.*

Formic Acid as a Preservative.—This acid is not used to any great extent as a preservative. However, the addition of three fluid drachms of formic acid, specific gravity 1.060, to a gallon of syrup made with six pounds of best cut-loaf sugar and two quarts of distilled water, preserved the product in perfect condition for more than a year; and the author consulted a number of physicians as to possible injuriousness, when all agreed that the above mentioned proportion would be innocuous.—MERCK'S REPORT.

Reduced Iron.—Iron by Hydrogen is a very fine grayish-black lusterless powder.

On page 634 of the U. S. Dispensatory occurs the following: "If black the preparation is to be rejected as not being fully deoxydized. . . . In the process of making Reduced Iron, part of the sesqui-oxide almost always escapes full deoxydization and comes out of the tube a black color, which should be rejected."—*Pharmaceutical Notes.*

Hands, Asepsis of.—A piece of pumice stone, boiled and kept in an antiseptic, is most effective to render the surgeon's hands aseptic, and "give him a new skin." It is far superior to the nail brush. Tests on dogs and rabbits whose intestines and peritoneum were handled after the hands had been rubbed with pumice stone in soapy water demonstrated the absence of pathogenic germs.—MERIEL (*Journal de Médecine de Paris*.)

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The majority of surgeons use hard sodium soaps but the potassium soaps are to be preferred because they are less expensive, easily soluble in water, and because clinical experience has shown that the cleansing quality of the latter is greater.—LEVSCHINE.

* * *

No method of disinfection will to a certainty render the hand that harbors septic germs aseptic. It is therefore advised to use rubber gloves in addition to thorough disinfection, the avoidance of contamination with septic material as far as possible, and the employment of rubber finger cots for examination of septic cases. Further, scrupulous care of the hands including the avoidance of aig-nails, keeping the fingernails clean, and the skin of the hand smooth and unbroken, is demanded. Seborrhœa of the scalp, ozaena and carious teeth must also be avoided by the surgeon.—HAMMERSFOHR (*Centralblatt für Chirurgie*.)

Sterility and Belladonna.—There are few drugs that exhibit so pronounced predilection for certain structures of the body as belladonna, and among the favorite tissues are those of the female sexual organs. Every practitioner is occasionally consulted by married women as to the cause of barrenness, though they enjoy the best of health, and have never suffered from any irregularities of the sexual apparatus. To such, on many occasions, belladonna internally becomes a boon, and after some weeks they become pregnant. This happens so often that I am constrained to regard it as something more than accidental. I do not venture to theorize upon the action of the drug in these cases, but may mention the fact that I have observed the external geni-

talia become more relaxed, and the uterine neck and os somewhat softened and pliable.—JONES (*New York Medical Journal*.)

Chrome Eyeglasses.—Yellow, or yellowish-green glasses, may be employed to advantage in the following:

In all cases in which the eyes require to be protected from an excess of violet or ultra-violet rays, as when working under strong electric light—here preference must be given to yellowish-green glasses:

Whenever the eye lacks the natural protecting elements, e. g. in aphakia, in which, according to Widmark, the absence of crystalline lens deprives the eye of the protection from an excess of violet rays, especially if the patient, for any reason, is suffering from weak eyesight.

An important property of these glasses is they facilitate distant vision, a fact which has already been recognized by the German Army Medical authorities.—DOLGANOFF (*Vratch.*)

Whooping Cough.—

Bromoform	64 minimis
Sweet almond oil.....	5 drachms
Gum tragacanth.....	30 minimis
Gum Arabic.....	60 minimis
Cherry-laurel water...	60 minimis
Distilled water to make	4 ounces.

A teaspoonful contains two drops of bromoform. Children under six months are given two or three drops daily to begin with; from six months to one year, three to four drops—divided in three doses.

—*Pediatrics.*

* * *

This malady, for fifteen years has been successfully treated by Josset with the aid of hyposulphurous baths, seventy-five centigrammes of polysulphate of potassium per litre being employed. The temperature should be 97° Fhr., and the duration twenty-five to forty-five minutes, according to age. Fifteen baths are, at most, required.—*La Médecine Moderne*.

Varicose Veins.—One hundred and sixty-four cases of varices without a single failure have been treated by means of hypodermatic injections, eight drops at a dose, into one of the principal varicose conflents, of a solution containing iodine and tannin, one and nine parts respectively; the operation is performed without anaesthesia, and repeated when necessary, the patient mean-

time standing, a rubber tube having been placed at the root of the thigh. By this operation a hypertrophic phlebitis may be brought on, with thickening of the venous walls, and consequent resistance to dilatation. After operation the veins are compressed ten centimeters above and below the puncture, the limb wrapped in boric-acid cotton, and the patient kept rigorously on his back in bed. The possibility of embolism is purely theoretical and not borne out by facts.—*Nice-Médical*.

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Pulsatilla is often of benefit in the treatment of varicosities, inasmuch as it acts upon the vascular system, and above all relaxes the right side of the heart, the veins and the capillaries. Wych hazel much resembles pulsatilla in this respect, and sometimes is even more beneficial; it causes dilatation of the blood-vessels with blood stasis and sequences.—*Allgemeine Homœopathische Zeitung*.

Acne.—

Mercury protoiodide....10 grains
Mercury ammoniated....20 grains
Simple Cerate.....1 ounce

Apply with friction.

—DUHRING.

* * *

Liquor potassa.....1 drachm
Rose water.....4 ounces

Apply with a soft sponge twice daily.

—BARTHOLOW.

* * *

Nitro-muriatic acid,
dilute180 minimis
Simple syrup.....3 ounces
Orange-flower water to
make8 ounces

A dessertspoonful thrice daily.

—DA COSTA.

Nasal Catarrh, Spray for.—

Sodium bicarbonate....3 grains
Sodium boraborate.....3 grains
Distilled water.....1 ounce

Filter and use as wash or spray.

—SAJOUS.

Anæsthesia.—In combinations of anæsthetics the patient is subjected to the bad effects of all. These admixtures, therefore, possess no advantages, since all the bad effects are exerted upon the heart or kidneys.—KEMP.

Hiccough.—A young girl suffered for four days without cessation from singultus, about thirty spasms to the minute, the attack being due, apparently, to some gastric disorder. When she put out her tongue for a few seconds it was found the hiccough ceased. She was then ordered to stick out this member at regular intervals for a few minutes, at the termination of which only a few slight spasms followed. She was then ordered to repeat, when the singultus ceased altogether, and did not again return. It therefore would seem to be proper to try continuous or rhythmic traction of the tongue in these cases.—*Revue de Thérapeutique*.

Cough Mixture.—

Potassium citrate.....	1 drachm
Lemon juice.....	2 drachms
Ipecac, syrup.....	4 drachms
Simple syrup to make..	4 ounces

A tablespoonful four to six times daily.

—WOOD.

Hair, Falling of.—

Cinchona, (red) tinct...	2 ounces
Cantharides, tinct.....	1 drachm
Ignatia, tinct.....	15 minimis
Acid carbolic.....	1 drachm
Cologne water.....	3 ounces
Cocoanut oil.....	3 ounces

Apply to scalp twice daily, morning and night.

—*Extraits du Formulaire de Vienne*.

An Efficient Sterilizer.—Ammonium sulphate solution is effective in sterilizing silk catheters as well as cat-gut ligatures.—*Medical World*.

Blisters.—There have been many protests against Huchard's sweeping denunciation of blisters. Matthieu asserts that in hydrarthrosis a cantharides blister is invaluable; and he likewise employs for the relief of gastralgia, on a space the size of a five-franc piece. Adrian thinks if the substance be applied in the form of chloroform solution, with a little squill, no bad results will follow, such as may be attributed to the use of plasters that leave some of the irritant on the skin. All agree, however, that the blister is worse than useless in broncho-pneumonia, kidney and cardiac troubles, and for children and elderly persons.—*Medical Bulletin*.

Barium Hydrate a Test for Organic Matter.—When barium hydrate is added to a mineral water, it precipitates all the contained metallic oxydes. This enables a series of organic substances to be detected:

Acids forming insoluble barium salts, perceived by the blackening of the barium precipitate on calcination:

The substances which barium hydrate leaves or sets free in the water, such as fatty materials and substances behaving as alkaloids, and that can be extracted from the water by means of benzene, petroleum ether and chloroform:

An acid which is apparently freed from its compounds by sulphuric acid:

Substances which precipitate silver nitrate, in the same manner as the three halogens:

Finally, a neutral substance which remains in the last portions of the primitive liquid with the alkaline earths and the alkalies.—*GARRIGOU (Chemical News.)*

Sage in Hyperidrosis.—Infusion of sage is again recommended for the treatment of hyperidrosis in tuberculous subjects as well as those suffering from leukæmia, rheumatic polyarthritis and typhoid fever; in thirty-eight cases where it was tried there were only two failures. Steep forty-five grains of sage leaves in half a pint of water and let the patient take a cupful in the morning, one during the course of the day, and still another before retiring at night—or the tincture of the leaves may be given in twenty-drop doses in the morning, and from twenty to forty drops at night. *Salvia officinalis* has a proper place in the front ranks of anti-sudorific remedies.—*Medical Week.*

Turpentine for Microscopy.—To rectify oil of turpentine so as to render it suitable for microscopical purposes, it is only necessary to place four parts thereof in one part of ninety-four per cent. alcohol, agitate well (from three to five minutes, according to the quantity employed), then set aside until it separates into two layers, of which the alcohol is the upper. Now decant off the spirit and add the residue to four parts of distilled water with persistent agitation; then set aside to separate as before. This time the turpentine will form the upper layer, which decant, adding thereto about an ounce of powdered starch,

also with agitation, when the product may be filtered through paper. Keep in a glass-stoppered container.—*National Druggist.*

Novel Remedy for Neuralgia.—Naegeli announces he has frequently caused almost immediate cessation of cephalalgia and facial neuralgia, as well as forms of long continued odontalgia, by simply elevating the hyoid, or what amounts to the same, the larynx, holding it well upward for sixty or seventy seconds. This frequently requires to be repeated several times, but quite as frequently one single attempt will prove successful. We have had several opportunities to test the truth of this, and in every instance in which the plan was followed, relief was almost instantaneous. The fact deserves to be more widely known than it seems to be.—*Public Health Journal.*

Meniere's Disease and Pilocarpine.—A man aged twenty-nine, afflicted with otorrhœa and symptoms of tuberculosis, suddenly started to vomit, then became deaf with vertical vertigo, but did not lose consciousness. The vertigo persisted for several days, and the murmur in the ears became very intense; there was ankylosis of the ossicles. He was ordered one-fifteenth of a grain of pilocarpine hypodermatically the first day, reduced to one-sixtieth the second day. After ten days the vertigo disappeared, but returned, when treatment was recommenced and continued for thirty days, when all disagreeable symptoms had permanently disappeared.—*Annales des Maladies de l' Oreille.*

New Alkaloid and Glucoside.—One of the Cruciferæ, *Erysimum aureum*, an ornamental garden plant, contain two active principles—one of an alkaloidal nature which provokes paralysis, and the other a glucoside, which constitutes a violent poison, affecting the heart.—*SCHLAGDENHAUFFEN (Chemical News.)*

Quinine, to Disguise the Taste of.—Make a syrup of rose leaves (fluid extract "hundred-leaved rose") one part; simple syrup three parts. This entirely masks the taste of the drug, the bitter flavor of the rose leaves only being noticeable; but immediately water is added the quinine is brought again in evidence.—*GATES.*

Nymphomania.—Search carefully for local cause, such as vaginitis, vegetations, vulvitis, eczema, syphilis, herpes.—Investigate especially as to diabetes.

Where a nervous disorder is suspected, bromides in medium doses are beneficial, and when associated with opium combat effectively the exaltation of venereal appetite: Camphor may be added if necessary.

When insomnia co-exists chloral may be given at night.

Local applications are useful, cocaine in lotion having the preference. Hydrotherapy is indicated in all cases; cold applications to the spine are beneficial, especially if made at bed time.—LUTAUD.

Bone Black Versus Iodoform.—Iodoform stimulates granulation by its fibroplastic influence, and this is probably an attribute of any finely distributed, inert foreign substance. I have been extensively testing bone black from this point of view, and in twenty-two cases of local tuberculosis microscopic sections of tissue showed that this substance is fully equal to iodoform without any possibility of intoxication. Only as a deodorant is iodoform its superior.—FRAENKEL (*Weiner Klinische Wochenschrift.*)

Tonic for Asthenic Fevers.—

Quinine sulphate.....	16 grains
Acid muriatic, dil.....	120 minimis
Iron muriate tinct.....	120 minimis
Nux Vomica, tinct.....	80 minimis
Ginger syrup to make.....	2 ounces
A dessertspoonful three times daily.	

—BARTHOLLOW.

Bronchitis, Acute.—

Terebene	4 drachms
Morphine sulphate....	1 grain
Acacia mucilage.....	4 ounces
Tolu syrup.....	2 ounces

A teaspoonful every third hour.

—DA COSTA.

Collinsonin.—This is a resinous substance, resembling scammony, obtained from the rhizome of *Collinsonia canadensis* (*C. ovalis*), by percolating with alcohol of specific gravity 0.828 and drying the residue, after distilling off the spirit. It is said to be of service in haemorrhoids and other diseases of the rectum, as well as in headache, digestive disturbances, phthisis, and heart failure.—OUGH (*Apotheke Zeitung*).

Gall-Stone Colic.—A blacksmith suffered from attacks of biliary colic during two years and became so much reduced in strength that he was obliged to give up all work, and keep to his room. Ipecac was prescribed in small doses and he only had one attack subsequently.

Another case successfully treated in like manner, after the lapse of a year had no recurrence. So far as personal experiences go, ipecac always works promptly and leaves no unpleasant after-effects.—Correspondence *Homœopathic News*.

Psoriasis.—

Chrysarobin	20 grains
Simple Cerate.....	1 ounce

Apply three times daily with thorough friction.

—GROSS.

Sciatica.—The following formula for the relief of sciatica, acute or sub-acute, is the most effective I ever prescribed:

Opium powd.....	12 grains
Ipecac powd.....	12 grains
Sodium salicylate.....	90 grains
Cascara, extract fluid, q. s.	

Make twelve pills and give one or two at a dose.

These induce activity of the skin, relieve pain, and keep the pulse free.—BENJAMIN WARD RICHARDSON (*The Asclepiad.*)

* * *

Wintergreen oil, true..	4 drachms
Turpentine oil, rectified	4 drachms
Acacia syrup.....	2 ounces
Cinnamon water.....	1 ounce

Make emulsion. Give a teaspoonful three or four times daily.

—DANA.

Diarrhoea, Obstinate.—

Silver nitrate.....	1 to 2 grains
Powd. gum Arabic.....	160 grains
White sugar.....	1 ounce
Water, distilled.....	8 ounces

A teaspoonful every two or three hours.

—CONSTATT.

Cough Pills.—

Terpineol	187 grains
Sodium benzoate.....	187 grains
Milk sugar, sufficient to make mass.	

Divide into 100 pills, and administer one or two every second hour.

—*Pharmaceutical Era*.

Medical Progress.

Truss-Fitting.—

I take it for granted that the diagnosis has been correctly made and that the abdominal contents which protruded have been properly reduced and lie out of harm's way in the cavity of the abdomen. The matter of retention is that which now concerns us, and this, under any and all circumstances, must be perfect to avert possible serious consequences. Any form of injection treatment is barred until such adjustment of a truss has been accomplished as will retain the abdominal contents with the same degree of certainty and perfection as if the breach were securely sutured.

A common error of those who essay to fit trusses in cases of inguinal hernia, is to place the pad so that it impinges on the pubic bone, makes undue pressure on the spermatic cord and obstructs the nerve and blood supply of the genital organs. Sufficient space should be left between the pad and the bone to permit the finger to be inserted. The truss must ride free of the pubic bone.

The character of the pad to be used is an important matter. Whenever it is possible it is preferable to use a hard, polished pad on account of its perfect cleanliness. The pad to be used in inguinal hernia should be constructed so that its upper end is deeper than the lower. This insures the proper pressure at the internal ring and not at the external ring where pressure is usually erroneously applied.

The use of a large pad is, as a rule, to be avoided except in extremely old cases in which the external ring is very large, and in those cases in which the abdomen is large and pendulous. As a usual thing a suitable pad for inguinal hernia is about the size of a two-thirds longitudinal section of a hen's egg. In femoral hernia, a pad about the size of a small walnut is the only one that I would advise to be used. If a larger one is adjusted, it will press upon the femoral artery and vein and interfere with the circulation.

In oblique hernia, it is imperative in order to secure retention, to apply the pad so that it will make such pressure as will prevent the abdominal contents from entering the internal ring since, if this happens, the peritoneal sac, intestine or omentum, as the case may be, readily slips down the inguinal

canal and emerges from the external ring beneath and below the pad, notwithstanding truss-pressure, or protrudes and causes an enlargement above the pad.

In femoral hernia, the pressure should be over and slightly above Poupart's ligament and to the inner side of the femoral vein. A femoral pad should also be constructed so that its upper end is deeper than the lower, that its greatest pressure may be directly over the inner opening of the femoral canal. If its thickest or deepest part is at the lower end, the gut will slip into the femoral canal and wedge itself under the pad. In such instances, if it does not protrude beyond the pad, pressure upon it in the femoral canal will be so great as to cause extreme suffering and enhance the chance of strangulation.

The recumbent is the most desirable position for the adjustment of a truss in inguinal or femoral hernia, the weight of the contents of the abdominal cavity tending to draw the portion which previously protruded from the ring away from the site of rupture, and admit of complete pad adjustment which, when the patient resumes the erect attitude, will hold the breach, or enlarged and inguinal canal, in so firm a manner as to prevent the bowel, sac or omentum, from starting to come out when it presents internally at the internal ring.

If the case be one of direct inguinal hernia, the pressure must necessarily be over the external ring, care being taken to avoid pressure on the pelvic bone and cord. Occasionally the internal ring is dragged down nearly to or quite opposite the external ring, in which case pressure is made upon both rings in the same direction. In such cases it is often necessary to use a special pad; likewise in long-standing cases in which atrophy of tissue renders the calibre of the breach unusually large.

The education of the patient, in the matter of not interfering with a truss properly adjusted, is usually neglected. Ninety-five per cent. of those applying to me who have been previously fitted with trusses I have found suffering with pad-pressure on the pubic bone and even below it. When I remonstrate with such patients, they reply that "There is where the rupture comes out." In many cases it requires patience and perseverance to convince the patient that the truss applied as above directed is properly adjusted. After a few weeks of complete retention, the pressure may be gradually re-

duced and still retain the hernia in a perfect manner.—DEPEW (*Medical Standard.*)

Grafting With Chicken Skin.—

An explosion had produced a deep defect in the leg of a young man, which was lined with small scraps of skin taken from the side of the breast under the wing of a spring chicken; the grafts included the derma and epidermis, and nearly all healed in place. The defect was completely lined with this skin in three sittings. It retained its specific vitality for a while, evidenced by the production of one small atrophied feather, but soon healed into apparently normal human skin.—FRANCESCO (*Weiner Klinische Rundschau.*)

* * *

In a woman of fifty, a small scratch on the dorsum of the left foot became erysipelatous and ultimately gangrenous. Careful treatment secured a healthy granulating sore, extending from two and a half inches above the ankle-joint to the roots of the toes, and right across the dorsum of the foot. Five grafts of about one-sixth inch each from a baby's skin were applied on the lower margin, on September 5th, 1900, four of which took well. On September 15th, from the breast of a chicken, fourteen dermo-epidermic grafts were taken, each fully one-third inch square, and immediately placed on the wound. This was dressed with boiled water and a film of sterilized gauze, covered with sterilized wool and gauze. On September 19th most of the grafts had taken, and ultimately only three failed to grow. The growth was rapid and good, and the resulting skin had all the characteristics of human skin.—BIANCHI (*Gazetta degli Ospedali.*)

Discovery Affecting Future Food Supply.—

We learn from a competent authority that one of the latest developments in electro-thermics is the synthesis of oxydes of nitrogen from atmospheric air. The importance of such a discovery to the world at large cannot well be overestimated. It will be remembered that some years ago Sir William Crookes, when President of the British Association, called attention to the rapid diminution of the world's supply of nitrates and pointed out their enormous importance as fertilizers in increasing the productivity of the soil. It was maintained

(and his conclusions have been to a considerable extent accepted by scientific people) that the areas of the earth that could be devoted to culture of cereals were rapidly decreasing, and that unless some means could be discovered of making them produce more cereals than they now do, the growing population of the world would, within a comparatively short period, cause the consumption of these great food-stuffs to far exceed the supply. Nitrogen, of course, is the base of all fertilizers, and while there are not in existence natural beds of nitrate deposits in anything like sufficient quantity to supply fertilizing material for the purpose indicated, Sir William pointed out that if a method of "fixing" atmospheric nitrogen could be discovered it would solve the difficulty. If this method has now been found we have before us one of the greatest boons that have ever come to the human race. Cyanide of potassium is also one of the practical achievements of this new discovery and its use in the industrial arts is of widespread importance, especially in the economic separation of gold. As for the nitric acid thus made, it is absolutely pure, of standard specific gravity, and produced for one-eighth of the cost of the commercial variety. The new Century starts out with no abatement of the marvelous speculative energy that so distinguished its predecessor. And electro-metallurgy is still absolutely in its infancy.—EDITORIAL (*The Sun*, New York.)

The Tonsil a Portal of Infection.—

The normal tonsil has a physiological function, probably protective to the organism; and, being in itself often diseased, this physiological function is often impaired, and instead of being protective, it becomes a nidus for the growth and distribution of pathogenic organisms and their poisonous products in the system at large. Doubtless many grave and fatal general infections have their origin in this gland.

If the exanthemata (especially scarlatina) are of bacterial origin, the tonsil acts in part as port of entry. Again, acute articular rheumatism, endocarditis and chorea, in a great majority of cases are due to the action of attenuated bacteria, their toxines, or both, entering the general system through a diseased tonsil.

In rare cases of typhoid fever in which no

intestinal ulcerations can be demonstrated, the similarity of the tonsillar tissue and Peyer's patches suggests the portal of entry of the Eberth bacillus.

Scrofulosis is often associated with diseased tonsillar tissue, and the tubercle bacillus often enters the system by this route.

The tonsil is too little examined at necropsies, which act might afford light regarding fevers of uncertain origin.—ULLMAN (*Medical News.*)

Uranium Rays to Enhance X-Rays.—

A screen of fine linen is impregnated with a solution of uranium—the source of the Becquerel rays,—and suspended between the vacuum tube and the subject at a point where the X-ray must pass through it. The shadows cast on the fluoroscope are much clearer and more distinct, and the contrasts are sharper than by any other technique. The finished actinograms are likewise exceptionally distinct, even with obese subjects.—GRUMMACH (*Bulletin Société des Hôpitaux de Paris.*)

Appendix, Carcinoma of.—

The diagnosis of this affection is extremely difficult owing to the absence of distinctive symptoms in the early stages. Attention is first directed to the iliac region by the onset of pain and the presence of tumefaction, and when these are manifest the growth is usually well advanced. There is, ordinarily, no interference with the digestive function until the growth has invaded the cæcum or the large or small intestine. The diseases for which carcinomatous appendix is most apt to be mistaken are: Cyst of the appendix, calculi, tuberculosis (of the so-called neoplastic form), impacted faeces in cæcum or the small intestine. In many instances only an exploratory section will secure a positive diagnosis. If the appendix is found to be the seat of a new growth, in order to secure its complete removal the head of the colon should be resected, and should the growth have visibly extended beyond the appendix, a more extensive resection may be indicated.—HURDON (*Bulletin Johns Hopkins Hospital.*)

Ruptured Gravid Tube.—

Operate as soon as possible. Pay no attention to the transuded blood because such will be rapidly absorbed. It is best to give patients twenty-four hours in the elevated

hip position after operation, because the blood within the peritoneum is more certainly absorbed, and also because the heart and respiratory centres are better nourished in this way. To replace the lost blood, employ rectal and subcutaneous injections of normal saline solution.—FLATAU (*Monatschrift für Geburtshilfe und Gynakologie.*)

[Note.—This is corroborative of the points made by Doctor H. W. Longyear in his paper on Ectopic Pregnancy published in the June number of this JOURNAL—pp. 71 and 72.—Ed.]

Instruments, Disinfection of.—

The official spirit of soap of the German Pharmacopœia offers a convenient means of effectually sterilizing surgical instruments. This spirit is made by combining six parts of olive oil with seven parts of caustic potash, subsequently diluting with thirty parts of alcohol and seventeen of water.—The caustic action of the potash is neutralized by the olive oil and water.

Instruments thoroughly washed with this solution, or simply wrapped snugly in cotton saturated therewith, may be kept aseptic for considerable periods of time; exclusion of air is an important consideration.

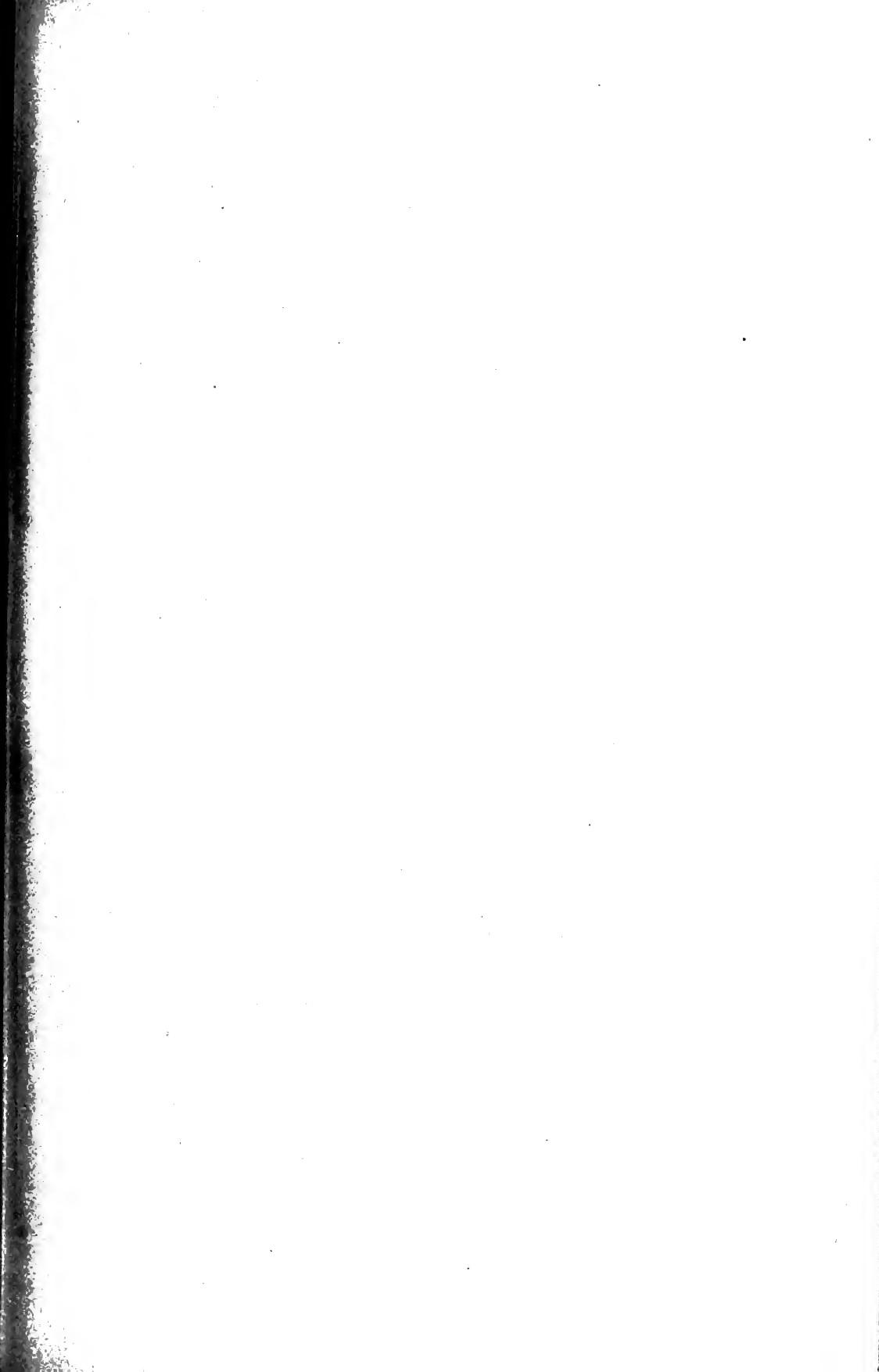
The same agent may be employed to disinfect the hands of the operator, or skin of the patient, as it is harmless even when applied in full strength.—*Deutsche Medizinal-Zeitung.*

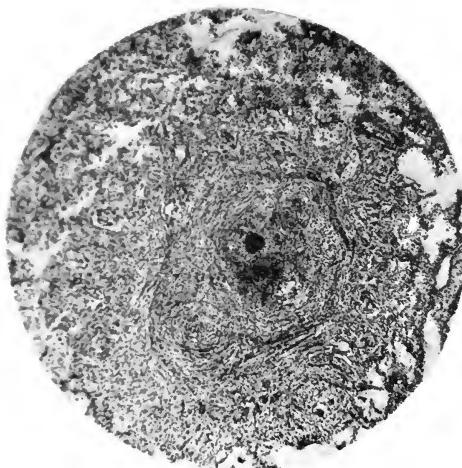
Methylene Blue as a Germicide.—

Methylene blue, in saturated solution, or even more dilute mixtures (ten drops to ten cubic centimetres of liquid culture), arrests the development of bacteria ordinarily found in the vagino-uterine passages; it has no inhibitive effects on the growth of the *Bacillus subtilis*.—CHALIER-VIVI (*Comptes rendus de la Société de Biologie.*)

Warty Growths on Genitals.—

These, especially in the male, are always to be suspected of malignancy, no matter how innocent they seem. They should be either left alone, or thoroughly removed by knife or cautery—imperfect attempts at destruction are especially to be avoided, there being many cases recorded in which they have apparently stimulated a benign growth to malignancy.—GOTTHEIL

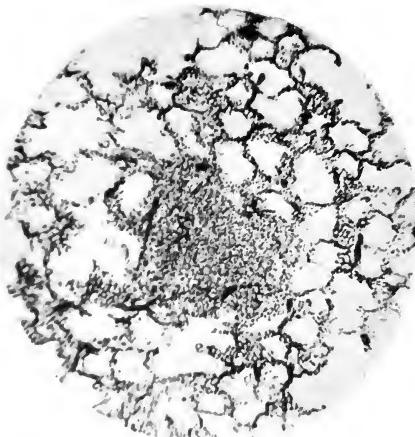




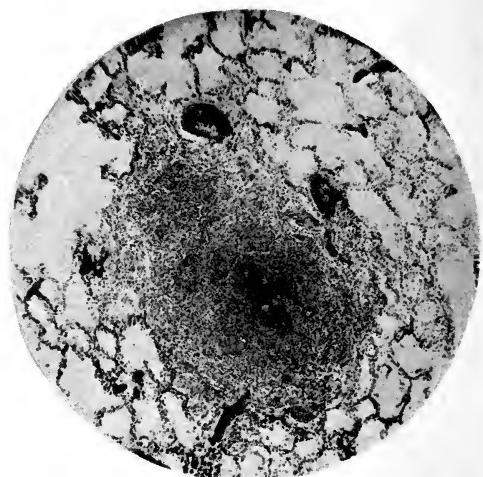
RETICULAR TUBERCLE CENTRE IS
JUST BEGINNING TO NECROSE



RETICULAR TUBERCLE.—
COMMENCING: FROM A CASE OF
ACUTE MILIARY TUBERCULOSIS.



INFLAMMATORY TUBERCLE
COMPLICATING LUNG OF CHILD.
CASE DIAGNOSED AS ACUTE
MILIARY TUBERCULOSIS
LUNG INSPECTED WITH BERLIN
BLUET.



CASEOUS TUBERCLE IN LUNG
OF CHILD IN CASE OF ACUTE
MILIARY TUBERCULOSIS. SO CALLED.
CENTRE OF MASS CONTAINS A
LARGE NUMBER OF TUBERCLE
BACILLI.



DETROIT MEDICAL JOURNAL

Original Articles.

TUBERCULOSIS.

HENEAGE GIBBES, M. D., C. M., L. R. C. P.
(LONDON.)

Koch's statement concerning human and vine tuberculosis, at the British Congress recently held in London, has caused a sensation throughout the world from which nothing but good can arise, inasmuch as numerous investigations will be made that will embrace all sides of the question; and the statement of Professor Virchow, in regard to the German Commission (of which he is a member) that "henceforth the anatomical tubercle shall be fully considered," most important.

I should not be surprised if Koch has a still more startling statement to make public, for which that regarding human and vine tuberculosis is a sort of pilot balloon. It must be remembered that he has never gone so far as some of his disciples, and that years ago he admitted having seen cases wherein no tubercle bacilli could be found, a truism that has been abundantly confirmed by others; and yet there are many who still deny this well-proven fact. It is to be hoped that clinicians will now come to the front and let us have the result of their years of experience, gathered from

careful painstaking observation of cases seen throughout their whole course.

And here I wish to point out where I think the view that the tubercle bacillus is ever present, and a cause of all disease ending in destruction of the lung substances, has worked positive harm. We are familiar with the condition of the lungs when a consolidation is formed which, after a time, softens and breaks down, is thrown off, and a cavity left. This result, I contend, is brought about by two distinct diseases-processes, which should have entirely different treatment before this condition is arrived at.

The first is a purely inflammatory one, beginning as bronchitis, extending into the lungs as broncho-pneumonia, forming a consolidation varying in size according to the intensity of the inflammation and the number of bronchioles affected. Should the vitality of the patient be so low, or the intensity of the inflammatory process so great that the affected portion of the lung is unable to resist it, death of the part results and then, after a time, a cavity is formed.

Careful study of a large number of these cases has proved that the disease-process is a purely inflammatory one from first to last;

and in cases of capillary bronchitis where death took place before the inflammatory process had extended into the lungs, the morbid changes were identical. Bacteriological examination of these cases fails to reveal the tubercle bacillus in the secretions of the bronchi, or in the consolidation in the lungs, until these organs begin to break down, and then they are generally present in large numbers.

I am told by men who hold the general view that the tubercle bacilli are pathognomonic, that these are cases of tuberculosis. I now desire to know *when* they became tubercular? From the number of cases examined and the uniformity of the results obtained, I feel sure of the stage when the tubercle bacillus appeared on the scene. Was this the time when the broncho-pneumonia became tuberculosis, because this was when the disease-process had destroyed so much lung tissue that the patients would have died anyway?

I will venture to say that over fifty per cent. of cases with cavities in the lungs are produced by broncho-pneumonia. Is it not then of the utmost importance that the number of men who are trying to cure these pulmonary conditions should know which disease-process they are handling, since the same treatment can not apply equally to both?

The other form of lung disease resulting in the formation of a cavity is an entirely different disease-process. Take a typical case: Here we have a patient complaining of lassitude and fatigue easily induced; we notice a commencing stoop and rounding of the shoulders; there may be no cough at this early stage, but a careful examination of the chest reveals dullness at one apex, generally the left. As we watch the case from day to day, it is found the dullness is constantly extending below the clavicle, and thus, gradually, all the symptoms develop with which we are so familiar. There is no expectoration in the early stages; there

can not be as the bronchi are not affected and the consolidation has not yet broken down.

This condition differs *in toto* from that first described: There is no acute inflammatory process extending into the lungs, on the contrary the disease-process is going on in the lung itself; and this process consists of a new growth which, starting in one apex, gradually substitutes itself for the normal lung-tissues; as it grows new blood vessels are formed for its nourishment, and the growth slowly progresses until a large portion of the lung is involved; the other lung becomes affected after a time, and we have all the signs and symptoms of pulmonary tuberculosis. This new tissue is of an unstable character, and in some manner cuts off the blood-supply from the central portion of the oldest tubercles, which become necrosed, then break down, and thus form cavities.

I have made a long and careful study of these two disease-processes, which although entirely different, end in the formation of cavities in the lungs.—The accompanying illustrations, from micro-photographs, show the initial stage and full development of each form.

The lower left-hand illustration is taken from a lung injected with Berlin blue, and the injected vessels are seen in the nodule; the whole is composed of cells, *i. e.*, leucocytes, which have passed from the adjacent blood vessels by diapedesis in response to some irritation. This does not differ in any way from inflammatory exudation in any other organ or part of the body where some irritation exists, causing, immediately at that spot, a massing of leucocytes, that is, inflammation, which increases until a consolidation is formed large enough to be recognized. At no period in this disease-process is there any new tissue formed.

Taking the initial stage of this condition, as set forth in the left-upper illustration, we find a totally different process going on;

there is no inflammatory exudation; there is nothing acute about it, in the sense of an inflammatory re-action to an irritant. The first appearance of the lesion consists of one or more giant cells surrounded by a fibroid tissue, consisting of fusiform cells arranged in a kind of network; the giant cells vary greatly in point of size, but all are multi-nucleated. When this small tubercle has grown to some extent, other small tubercles are formed in its periphery until the consolidation reaches a considerable size; at the same time it is only an aggregation of tubercles.

We have, then, a portion of the lung that has become a mass of consolidation from the growth in it of an alien tissue which has entirely replaced that of the lung. This new tissue being of low vitality easily becomes necrosed, breaks down and is thrown off, leaving a cavity.

I have made a very large number of examinations of both these initial stages and have never been able to find the tubercle bacillus in either. Surely, if the tubercle bacillus is the cause of either of these lesions in the lung, it ought to be found at the commencement of the morbid process! Contrasting this with leprosy: In the latter malady I have made many examinations of the liver, where the disease is never so far advanced as in other parts, and wherever there were two or three new cells formed from the connective tissue of the organ, there I invariably found the leprosy bacillus.

Here then are two disease processes that are absolutely different in everything but their results, viz., cavitation of the lungs. The two upper illustrations exhibit the adult conditions.

I have already stated that tubercle bacilli are found in the inflammatory process after the lung breaks down. They are, in some instances, but not in all, found in a similar manner in the other process. Many cases are on record where

no bacilli could be found during life, or even after death and, as far as I have been able to ascertain, these cases all belong to the second of these disease-processes.

It must be plain to any thinking physician that these two conditions can not be approached and treated in the same manner, and I think that it is of the utmost importance that the difference should be recognized at once on examining a case. I saw this well exemplified recently, when called in consultation to a child twelve years of age: A small consolidation existed on one side, about the level of the third rib; dullness was well marked, but moist râles were found round the edge; auscultation and percussion above the consolidation showed that the lung was performing its functions and that the consolidation did not extend to the apex. This at once removed any idea of the case being one of tuberculosis, but, on the other hand, showed it to be a patch of broncho-pneumonia, clearing up; and subsequent events proved this opinion to be correct.

I wish to point out that this new tissue which is formed in the lungs under the influence of the tubercular virus, differs entirely from that produced as a reaction to a chronic irritation; this is well shown by Doctor W. F. Metcalf, in his paper on "Pseudo-Tuberculosis," published in the May number of this Journal: There he shows that the prolonged irritation produced by the presence of the chitinous chelicerae of an Ixode in the cutis vera, caused the formation of a nodule, the cells of which were entirely unlike any of the normal cells of the part; but these cells were also quite different from those of a tubercle such as I have described.

Pfeifer has lately described a pseudo-tuberculosis and Klein has confirmed his results; their deductions seem rather contradictory, but further work on this

subject may have an important bearing on tuberculosis. One thing seems certain: Many workers will now take up the pathological side of the question, when there will be a great deal of light thrown on these conditions; and I very much fear the child-like faith of the bacteriologists will be rudely disturbed.

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*RECENT EPOCH MAKING IN MEDICINE.

BY SAMUEL BELL, M. D.

At a meeting of the British Pathological Society, of London, April 6th, 1875, the "Germ Theory" of disease was first formally introduced, the discussions being very animated and earnest,—which also obtained at subsequent meetings. This conference was attended by distinguished medical men, some of whom were profoundly impressed by the arguments brought forward. The co-existence of bacteria and contagious disease was admitted, but Doctor Bastian, one of the most prominent speakers, contended that they are pathological products spontaneously generated in the body after it has been rendered diseased by real contagion. The grouping of the ultimate particles of matter to form living organisms, was considered, by the speaker, to be an operation as little requiring the action of antecedent life, as their grouping to form any of the less complex chemical compounds.

Prior to this, Henle (in 1840) after mature deliberation, collating and weighing of evidence, had arrived at the conclusion that the causes of infectious maladies are to be found in minute living organisms or fungi; hence he may be regarded as the true and original author of the "Germ Theory."—He formulated opinions and investigated the subject with such thoroughness and ability that, in after years, Koch adopted precisely the same views. In 1862, Pasteur published a paper on the "Organ-

ized Corpuscle existing in the Atmosphere," in which was demonstrated that many of the floating particles are organized bodies, and that these, when planted in sterile infusions, yield abundant crops of micro-organisms, evidencing that the source of life in the infusions was derived from the air. Listerism originated in 1875, and when Koch published his famous work on the *Wundinfektionskrankheiten* (traumatic infectious diseases), three years later, the Listerian theory took firm root, spreading slowly but surely to all departments of medicine and surgery.

From time to time, as the need was realized, men of genius have provided devices and instruments with a view to aiding in this work, and some of these have made possible subsequent discoveries.—Among these may be mentioned the use of sterilized culture fluids as formulated by Pasteur; the introduction of solid culture media and the isolation methods of Koch; the use of the cotton plug by Schroeder and Van Dusch; the introduction of the anilin dyes by Weigert and, finally; the improvements made in the compound microscope.

It is interesting to note that after the discovery of the anthrax bacillus by Pollender and Davaine, in 1849, there was a prolonged period, during which no important discoveries of pathological organisms were made, but during this period important methods of *technique* were elaborated. This was again followed by a period during which important additions followed each other in rapid succession: In 1873, Obermeier discovered the spirillum that bears his name and is deemed the source of relapsing fever; Hansen, in 1879, announced the discovery of a bacillus in the cells of leperous nodules; and Neisser during the same year demonstrated the *gonococcus*; in 1880 the typhoid bacillus was first observed by Eberth, and subsequently and independently by Koch; the same year Pasteur published his work on "Chicken-cholera," and the *pneumococcus* was described

by Sternberg; in 1882, Koch announced the *Bacillus tuberculosis*, which was soon followed by Pasteur's work on "Rouget du Porc," while Loëffler and Schütz reported the isolation of the bacillus of glanders; in 1884 the "comma bacillus" was announced by Koch as the probable source of cholera, about the same time Loëffler discovered the germ bearing his name conjointly with that of Klebs, and believed to be that of diphtheria, and before the end of the year the tetanus bacillus was demonstrated by Nicolaier; in 1892 Canon and Pfeiffer announced the bacillus of influenza; in 1894, Yersin and Kitasato independently isolated the germ of the bubonic plague, and Sanarelli discovered the *Bacillus icteroides*, supposed to be the source of yellow fever.

During the last quarter of a century the science of bacteriology has made triumphant strides, revolutionizing all preconceived ideas and theories respecting the aetiology, diagnosis and even the treatment of infectious diseases; among those upon which information has been of greatest value are, tuberculosis, diphtheria, tetanus, bubonic plague, etc.

Up to 1875 there were few scientific men who accepted the germ theory, the great majority adhering to the doctrine of spontaneous generation, believing, with Billroth, that the presence of fungi, where decomposition was in progress, was an accidental result of universal distribution or (more conservatively) that their presence in putrid wounds was either due to spontaneous development or accidental and artificial introduction.

McFarlane was among the first of any prominence to accept the germ theory as applied to diphtheria: He says that all possible skepticism as to the specificity of bacilli was dispelled by an accidental infection that confined him to the house for three weeks during the busiest season of the year. Without having been exposed to any known contagion, and while experi-

menting in the laboratory with a virulent culture, the diphtheria bacillus was drawn into a pipette and accidentally entered his throat. As the result of this accident, two days later his throat was full of typical pseudo-membrane which contained Klebs-Loëffler bacilli.

Welsh, of Johns Hopkins, has perhaps furnished the most reliable as well as the most complete statistics of the results accomplished by the antitoxin treatment of diphtheria: Excluding every possible error of calculation, his report shows an apparent reduction of 55.8 per cent. in mortality. Another very important point made by this author illustrates the importance of early treatment, viz.: The fatality in 1,115 cases of diphtheria, treated in the first three days of the disease, was about 8.5 per cent., as against 546 cases injected with antitoxin after the third day, with a death rate of 27.8 per cent.—Thus was established the fact that early treatment is essential, and that after the toxin has set up destructive organic lesions in the various organs of the body, no amount of neutralization will restore the integrity of the parts; consequently, antitoxin fails to be of material benefit in the latter class of cases.

In 1884, Lusgarten devised a method for staining bacilli found in syphilitic tissue, which germs he assumed to be the cause of the disease. The most recent research on bacterium of syphilis is that of Van Niessen, who claims to have cultivated from the blood of a few cases, and by inoculation experiments obtained evidences of the specificity of the organism, by the production of abortion in pregnant rabbits; by the development of extra-genital primary lesions on the ears of the same in the form of nodes; and by the production of secondary ulcers, tumor-formations and irregular lesions. However the researches of others, up to the present time, have not been satisfactorily confirmative, and consequently the specificity of this germ is not established.

Considering our increased possessions in

the Far East, the importance of early recognition of the bubonic plague can be appreciated, especially when the United States Marine Hospital Service reports the introduction of this fell malady to the Western Hemisphere. Its appearance in Santos, Brazil, in October, 1899, marks an epoch in plague literature, as furnishing the very first recorded instance of the disease in the New World. During November of the same year the malady was brought to New York by a British steam-ship, and late in December, 1899, it made its appearance in Honolulu; its advent in California is so recent, that mere mention is sufficient.

This disease furnishes a striking illustration of the scientific advance of modern medicine, for it was not until 1894 that its true nature became positively known. All through the centuries, in all the countries, the subject had been enveloped in darkness, and there was a blind groping after facts, an unsuccessful search for cause, and the same ignorant struggle against its ravages, on the part of physicians, sanitarians and public officials alike, such as obtains to the history of cholera, a malady that now, fortunately, by the efforts of science, is robbed of its terrors. So, too, the cause of the plague, the mode of propagation and the measures essential to prevent its spread, are to-day matters of general scientific information. To Pasteur and Koch is indirectly due the credit of this discovery by establishing bacteriology as a science, though to a Japanese physician, Kitasato, and the French observer, Yersin, we are indebted for the discovery itself. The fact is now established that the plague is an infectious malady caused by a specific bacillus; and the anti-pest serum of Yersin and Roux, and the Haffkine prophylactic, have been tested with most gratifying results, the latter for the prevention of the plague, the former for its effects upon the bubonic poison whereby it is neutralized

within the system. The French Commission that recently investigated the efficacy of the anti-pest serum in Portugal, report that the mortality was but fourteen per cent. against seventy per cent. of fatalities where the serum was not employed.

In a recent lecture by Roux, a striking illustration was given of the efficacy of the Yersin serum:

The Bombay manager of the local branch of the Credit Lyonnaise resided with his wife, children, and a numerous retinue of native servants, in a dwelling in an infected portion of the city. His little daughter was stricken with the pest in a virulent form; was treated with the serum and made a rapid and uneventful recovery. As a precautionary measure the whole family were subjected to inoculation and the same measure of treatment was offered to the native domestics. Those who accepted escaped infection, while all of the six who declined were stricken, five fatally. It seems that a more crucial test could not have been devised or a more triumphant vindication obtained.

The *British Medical Journal* gives the results accruing to the employment of Haffkine prophylactic in Bombay, which show a reduction in mortality of eighty to ninety per cent.

The work of the late Federal Commission in establishing the disputed fact that the plague existed in California, was a signal triumph for science and marks an epoch worthy of a place in the archives of modern achievement.

In 1896, Widal and Grünbaum, working independently, discovered that when blood-serum from typhoid fever patients is added to cultures of the typhoid bacillus, a definite reactive phenomenon occurs; this is known as the "Widal reaction," and consists in complete cessation of the characteristic movement, and subsequent agglutination, of the typhoid bacilli. The test was applied to two hundred and thirty cases of typhoid, among troops engaged in the Spanish-American War, treated in the Medico-Chirurgical Hospital, and of this number two hundred and nineteen reacted positively, or 95.64 per cent. The statistics derived from Osler's wards in the Johns Hopkins Hospital by Block and Gwyn, up to November,

1898, evidence that the reaction was present in one hundred forty-four of a total of one hundred fifty-one cases. Statistics further developed the fact that the reaction failed in only 4.5 per cent of cases out of a total of 2,393; and it is probable that even this small percentage would have been further reduced if the test, when negative at the first examination, had been repeated every day or two until convalescence was fully established. Without granting the precision of the method, it nevertheless may be assumed to be of great diagnostic importance.

Bacteriology is the outgrowth of the medicine and surgery of the past; and from being looked upon as merely incidental thereto it has become the dictator of the medicine of the present and future. Much valuable work has been done on the acute and chronic inflammatory diseases, also on the toxemias and bactericides.

Hæmatology, a comparatively new study, has become an adjunct to clinical diagnosis, but sufficient time not having supervened, the limits of its usefulness have not been fully determined; the evidences afforded, thus far, have been very disappointing sometimes—results accruing that were wholly unexpected, perhaps opposed to those sought,—while again, on the other hand, shedding far more light than could have been anticipated. The number of maladies in which its value is apparent are less than a half-score, but that it proves a decided aid in many more is not to be gainsaid; it may provide the missing link in a chain of otherwise incomplete evidence. On the whole, hæmatology in its results is not inferior to examination of urine; both give definite results in a few diseases, and side lights in many obscure conditions, even if the process itself is negative; and the former has one very decided advantage: It can be employed during the life of the patient, and like all methods of purely physical character, in all febrile maladies, and where there is any cause (such as insanity, stupidity

or unconsciousness) preventing intelligent communication with patient, much light can thereby be obtained.

It is now conceded that *Anopheles*, a form of mosquito, may convey the parasite of malaria from man to man; even a *résumé* of the literature of the subject would consume so much time and space, I must, *per force*, be content with mentioning that, important observations by original workers are now being made in the tropics that promise more practical information.

The most striking feature in this connection, however, is the (apparently) definite establishment that the cause of yellow fever is present in the blood of those attacked thereby, and that certain mosquitoes can inoculate healthy individuals; also that the disease is not transferrable by fomites. This is regarded as a very important medical discovery, removing in large part the mystery obtaining to the aetiology of a malady that is, not alone the scourge of some of the fairest portions of the globe, but renders certain districts thereof practically uninhabitable to civilized man.

Relative to the cause of cancer, Max Schuller, of Berlin, and Roswell Park, of Buffalo, (and the co-laborators of the latter at the State Hospital), have accomplished some excellent work; Park reports having been able, in some of the lower animals, to produce true adeno-carcinomas by inoculation with fluid from the peritoneal cavity of a man suffering with colloid cancer of the omentum. Schuller reports* having found in both carcinoma and sarcoma a golden-yellow body, a protozoön, that he presumes to be the primary cause of these growths; and a culture thereof, when injected into a rabbit, produced cancerous tumors, while other cultures revealed the organism in different stages of development. The results of experiments now in progress, are

*Centralblatt fuer Bakteriologie, 1900.

awaited, both in Europe and America, with great interest.

Since the discovery of the Roëntgen rays, great advances have been made in the practical application of this mysterious form of energy. Somewhat reckless predictions, born of enthusiasm, have been indulged in, nevertheless they have proved of great diagnostic and therapeutic value, and time may be expected to establish more fully their scope and utility. At one time it was seriously feared that the prolonged exposure, deemed essential to successful observations, would limit their usefulness, but the improvements in *technique* that have recently accrued, permit of excellent results being secured with more brief exposures. Now, with our improved methods, a diagnosis is often possible, and with a precision that can not be obtained in any other way. By means of the radiograph, foci of tubercular infection can be made manifest to the eye much earlier than to the ear; a unilateral or bi-lateral enlargement of the heart, or any form of cardiac displacement, is readily discovered by the same means; emphysema, asthma, pleurisy, hydro-pneumothorax, pyo-pneumothorax, hydrothorax and pneumonia, are easily recognized and their limits defined; thoracic aneurysms are recognizable in their early stages; cavities which escaped detection by auscultation or percussion are revealed; and the presence of fluid within the pleura may be positively determined. Senn declared the X-rays as employed during the late war, "fully answered all expectations," and added:

During the Spanish-American War the skin-graph enabled us to diagnose the existence or absence of fracture in a large number of doubtful cases in which we had to depend exclusively on this diagnostic resource. In fractures in close proximities to joints, it has been of the greatest value in ascertaining whether or not the gun-shot fracture extended into the joint. In the light of recent experience the X-ray has become an indispensable diagnostic resource to the military surgeon in active practice, and the suggestion that every chief surgeon of every Army Corps should be supplied with a portable

apparatus, and an expert to use it, must be considered a timely and urgent one.

Manifestly the limit of usefulness of this aid has not yet been determined. It may be noted, however, that the rays have rendered valuable aid in the treatment of diseases of the skin, more especially lupus vulgaris, lupus erythematosus, chronic eczema, vascular naevi, hyper-trichosis, favus, and sycosis; also in other pathological conditions of internal organs.

During the past ten years, phenomenal advancement has been made in the diagnosis and treatment of diseases of the stomach; the cyromele has been invented; the gastro-diaphane perfected; a perfect gastric electrode introduced, likewise the gastric bucket; X-ray pictures of stomach have been taken; a large number of lavage apparatus devised; the gastro-scope made fairly practicable; and a number of operative procedures devised.

In considering the burning questions of the day it is requisite to include the bacterial toxins, sero-therapy, organotherapy, auto-intoxication, and the relations of internal secretions to problems connected with the nervous system,—that part of the human organism which, in the main, is responsible for the lofty position which man holds among animals. The last decade has given birth to unprecedented activity in connection with the progress in neurology. The results obtained have led to complete revolution in ideas concerning the elements of the nervous organs and their mechanical relations, and supplied a host of new methods of investigation in the prosecution of the study of the nervous system in health and disease. Entirely new avenues of research have been opened up, and problems heretofore thought beyond the reach of scientific inquiry seem now within human grasp. So numerous have been the methods of original research pursued, that space and time forbid their review; I shall merely mention briefly

a few of the main achievements: Among the names which have shed new lustre on the subject of neurology is that of Ramon y Cajal, whose connection with original work has been both brilliant and fruitful. If popular history can be relied upon, the story of this young scion of Spain is remarkable, especially from a medical standpoint: Developing in a country not remarkable for original research, he applied for a position as teacher of the microscope, and was refused; whereat, being ambitious, industrious and proud he was keenly wounded. He then purchased a small library devoted to histology and microscopy, practically ostracised himself from society, and began his original work, paying special attention to *technique*, and as a result found himself, a decade later, famous. A brief inquiry into the contributions of Cajal can not fail to reveal why, since 1888—and in all parts of the scientific world,—his productions have attracted attention, and ultimately gained for him a professorship at Madrid, as well as notice and appreciation by international audiences. Among his original contributions are: "Demonstration of the Complete Independence of at least the Majority of Nerve Elements"; "Appreciation of the Wide-spread Occurrence and Significance of the Lateral Branches of the Axis-Cylinder Processes," and: "Demonstration of the Striking Uniformity in General Structure of the Majority of Nerve Elements in all parts, Despite Minor Morphological Elements."

Since 1880, investigations of Golgi, His, Kölliker, Cajal and others, have produced a complete revolution in ideas relative to the elements of which the nervous system is constructed, and also of the mode in which these elements are architecturally put together. The Golgi method of staining tissue is now recognized by the whole scientific world, and the pictures of nerve cells and their processes secured

thereby (incomparably superior to anything hitherto obtained) are regarded in the light of a new discovery. Cajal with his incomparable genius made new applications of the Golgi method, which have attracted wide-spread attention, and anatomists everywhere (von Kölliker and others in Germany, van Gehuchten in Belgium, Retzius in Sweden, Schäfer and Andriezen in Great Britain, Berkeley and Strong in America, and a host of others) set to work with the osmo-bichromate mixture and silver nitrate, and in a short time a new era was opened up, and information supplied regarding the reciprocal relations of nerve units in the various parts of the cerebro-spinal and sympathetic nervous systems. The connection of the axis-cylinder processes of the cells of the neutral horns with the axis-cylinder of the fibres of the motor roots of the spinal nerves, were first absolutely established by Weigert's methods coupled with the method of Gerloch.—This, in conjunction with improved *technique* in sectioning, has contributed greatly towards the investigations in neurology.

In 1891, Waldeyer brought out the doctrine of individuality of the nerve elements, or the "Neuron Concept," which may be briefly condensed as follows:

The nervous system, aside from its neuroglia, ependymal cells, blood vessels and lymphatics, consists of an enormous number of individual elements of neurons, each neuron in its entirety representing a single body or cell. The foundation for the neuron doctrine rests upon these facts:

The nervous system agrees with other parts of the body in being cellular:

The proof that in the embryo the nerve cells exist as independent units, many of which are capable of wandering for considerable distance from the origin:

The fact that the nutrition of the nerve cells is most easily explained from the standpoint of a doctrine which looks upon the nervous system as made up of units, which are not only anatomical but physiological.

Since this doctrine was advocated a

large amount of work upon degeneration of nerve-fibre and cells has been done, especially by Marchi, which confirms the validity of the neuron doctrine, the latter being of value in enabling the histologist to follow the diseased nerve-fibre to its termination. The conception of the neuron has helped to facilitate the understanding of some diseases, in showing that there is no cardinal distinction between gray and white matter; and it likewise served to unravel, in part at least, the mystery which formerly surrounded those diseases that involve, almost simultaneously, the various systems of white fibres and the gray matter. Proportionately with the growth of the neuron concept the value of systemic diseases is lessened.

Do what we may, we can not separate mental diseases from organic affections of the spinal cord and, indeed, of many other organs of the body. The line of demarcation between the mental and physical conditions is so indistinct that, in many instances, one merges into the other. One of the foremost alienists of Europe latterly declared that psychiatry is on a level with the medical sciences of a hundred years ago, being based wholly upon clinical studies and not upon pathological anatomy. A few years since, Doctor Weir Mitchell, during his annual address to the American Medico-Psychological Association, indulged in severe criticism upon the lack of scientific work in hospitals for the insane, which aroused no trifling indignation. That abundant material for scientific work exists, both clinical and pathological, is undenialable, and that there has been marked advance, both in the character of the clinical work and in honest endeavor along aetiological lines, is conceded. That greater advancement has not been made can not be attributed wholly to inertia on the part of those in charge, but is largely due (especially in relation to causation) to the well known fact that the morbid path-

ology of the brain is more complex than any other part of the human organism. The asylum reports instead of being given over to stereotyped data, as formerly was the case, to-day are fast becoming store-houses of useful information regarding all that pertains to the care, cause, and treatment of the insane. To the practical psychiatrist the question of domiciliation does not overshadow every other desideratum, as in the past, and during the last decade the importance of early diagnosis, the accompanying pathological conditions, prompt separation from domestic surroundings, and skillful treatment (mental, moral and physical) have become questions of paramount interest. Closely trained observers, records of clinical facts, also systematic laboratory work, are now the rule rather than the exception in many institutions: Pleasant, cheerful rooms have taken the place of darkened cells; airy courts are provided, along with beautiful grounds and attractive architecture; the Kirkbride system has replaced the old quadrangular buildings, and the cottage pavilion, in some form, is fast superseding all others; finally, the specially trained, and skilled nurse has been substituted for the ignorant (and sometimes careless) attendant.

The work of Meynert on the cerebral cortex, and the researches and experimental labors of Charcot, Flechsig, Wernicke, *et al.*, have done much to illumine conditions hitherto obscure and considered impervious; the labors of the New York Pathological Institute, under the leadership of van Gieson, have received the recognition and commendation of many of the original investigators of Europe as well as America, and the original contributions of Berkeley to the pathology of brain lesions, have stimulated the study of psychiatry in insane hospitals everywhere. It is the spirit and honest endeavor on the part of those interested in the science of psychiatry (together with the increase of insanity over and above the increase in

population) which makes possible a psychopathic hospital in Michigan in connection with institutions of learning, exactly as such are now established in connection with the older universities of Europe. At the present time there is no branch of medical science which offers so many interesting problems for solution; and though the past has been full of disappointments, the future is full of hope.

We begin a new century under most encouraging auspices. That just closed will go down into history as one marvellous in scientific achievement, especially in many departments of medicine and surgery, and as marking the close of the career of dogmatic medicine; but there are still many important subjects that require careful and profound consideration. Fortunately, science recognizes no nationality; from Germany, Belgium, Sweden, Russia, Italy, France, Spain, Japan, South America, England, Canada and the United States, come reports of work that embody the spirit of scientific research to an eminent degree. What of the future? That more brilliant achievements are soon to follow, few can doubt. Serum therapy is yet in its infancy, and although one of the crowning triumphs of the Nineteenth Century, there are certainly great possibilities as regards its future scope and employment.

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EXTRACTS FROM THE JOURNAL OF A NAVAL MEDICAL OFFICER.

(Continued.)

December 2d.—The weather has been unusually tempestuous for the last week or so, and high winds and frequent showers of rain have been the rule, so that, though the anchor was once hoisted to go outside for target practice, we returned the same day without doing anything. Fortunately the inside anchorage is so protected by a reef, that there is never any sea no matter how high the wind, and there are never any hur-

ricanes here. Our ship is anchored very close to the shore, that is to the reef—not the landing in the town,—and like all craft in the harbor that desire it, we have a telephone while in port. The reef is the inevitable coral formation found generally throughout the Pacific, and with its crest-line of white breakers, dividing the apple-green or amethyst shoals from the blue of the ocean, under a bright afternoon sun only now and then obscured by a swift passing cloud bringing with it a spoonful of rain, is beautiful with a beauty unequalled.

Yesterday I went ashore, and there being less wind and rain than usual, made another trip out the Nuuanu road. On the way up I observed a sight that was very amusing: A white house with large, well-kept grounds, numerous trees, shrubbery and flowers, presented quite a menagerie. If of nervous disposition, one is apt to be alarmed by seeing a full sized lion, apparently stalking across the grass toward him, with only a low fence intervening and offering protection. The animal's eyes are large and the whites very prominent, which give him an expression of mingled pain and ferocity that becomes ludicrous when it is discovered the creature is of cast metal. There are at least half dozen of these formidable brutes, all loose, without even collar or chain, standing in the rank grass without a pedestal or platform for their poor feet, and their bronze or cast iron fur is quite mouldy with damp. These are not the only sham animals on the premises; there is at least one deer, the most wildly impossible quadruped imaginable; also certain white statues of young women, presumably marble, but which I suspect are after all but ordinary cast iron, whitewashed. The lions are full grown, and rather much for one's nerves, inasmuch as they are artfully arranged, apparently lurking in the recesses of the shrubbery, yet visible to the wary traveller, and besides very white eyes, are well toothed in deeply lurid jaws.

I paused half way up the Nuuanu road, *mauka side* (that is seaward side) to take in the view, upon which I have expatiated before. I may as well say, right here, that *mauka* is a word of great resource among the natives, and in this instance means the side furthest away from Honolulu.

I have before spoken of the little spring a few hundred yards down the cliff towards the valley beyond the *pali*; also that both

men and women here ride boldly. While lingering at the spring I heard a clatter, and up came a cavalcade of some sixty or seventy ponies and mules, all with little packs on their backs, driven by Chinamen, who all dismounted at the top of the *pali*, which natives would never have thought of doing. These islands are a perfect paradise to the Celestials, and they travel about a great deal; and although cutting most awkward figures, they can ride, or at least stick on, or do anything else necessary to their business; and they go fast and slow according to the needs of the time or place with the same stolid indifference they show in the laundry. They frequently intermarry with the natives, and the type resulting is rather peculiar and not unpleasing. The remarkable thing about the Celestial is his ability to adapt himself, in his peculiar way, to anything and everything, consequently he is found in every form of business where money is to be made. Somehow there always seems to me something strange and almost uncanny about these guttural jabbering people, though why, I cannot say.

The walk up and down the Nuuanu road was more interesting than it would otherwise have been on account of the great number of roadside flowers and weeds which, though seldom of any size, were so plentiful as to give decided color (in patches), to the landscape. A purple flower of the mint family was about the only one that reminded me of our vegetation at home, except some convolvuli which were everywhere apparent. There was also a very bright yellow fluffy ball of a species of mimosa; a pure blue but very delicate flower like a forget-me-not; and variegated clusters of a blossom which I thought I ought to know but could not place—all so thick as to make the outer edges of the road, and banks of the ditches and taro-patches bear resemblance to the borders of a flower garden, and withal it must be remembered this is in mid-winter. I think there is rather a large variety of plants indigenous to these islands, but hundreds more have been introduced as ornaments, or for utility, from all parts of the world. The other day Mrs. Afong (of whom more anon) gave me a blossom of the ylang-ylang from a tree in her garden, the odor of which was wonderfully penetrating. All classes of Hawaiians, as well as the South Sea Islanders, are passionately fond of flowers and bright

colors, especially red; even the cannibals of the Solomon Islands have this taste.

Walking into town on my way back I observed many fine places, though perhaps not very carefully kept, but with plenty of trees, royal palms, date palms, algarobas, bread-fruit, etc. The Afongs possess a noble banyan, the only one I know of in the city; and cocoa-nuts are only too common.

December 5th.—The weather here can hardly be fancied for this time of year. It is not really hot, neither is it always cool or comfortable; though bright this morning, in the afternoon it turned out showery, as is usual at this season. In the main, blue uniforms are more suitable than the white ones. The rain, however, has brought out a wealth of flowers, especially roses, very fine ones being visible on every hand.

I just broke off to burn a piece of camphor on account of the mosquitoes that appear unusually ravenous and blood-thirsty—this procedure, which has the sanction of “authority,” never proves very efficacious. On shore the Chinese have curious ornamental furnaces, made from some sort of white metal, in which they burn a powder, sometimes of sandalwood, sometimes *Pyrethrum rosum*, better known perhaps under its pseudonym of “Persian Insect Powder;” the art of the thing is, that the powder is poured over a little iron mould, which is then withdrawn leaving the contents divided into continuous ridges, so that when a match is touched to one end the fire creeps and smoulders along evolving smoke for a couple of hours or so—if the powder was simply piled up it would all be consumed at once.

Off Lahaina, December 10th.—We arrived her yesterday for target practice and are bound for Hilo, on the island of Hawaii. The ship is under weigh, with her great guns going, and while I am writing, every now and then, if one of the after battery is fired, my ink-stand fairly jumps from the table.

I presume there will be no opportunity to visit the shore here, hence my description is merely of what can be seen from the deck or from a port. There is a strip of low green land, apparently level and fringed with cocoa-nut trees, just inside the shore-reef. The slopes beyond, and towards the mountain ridges that form the background, are green with sugar-cane and other crops; then there are rifts or deep ravines intersect-

ing the ridge ; and finally a *pali* that appears inaccessible. From the ship—we are twelve or fifteen miles off Maui—we can see the islands of Molokai, Lani, Kahoolawe and Hawaii, including the famous extinct volcano of Haleakala, with the largest crater known, which rises on our port beam nearly 11,000 feet, and so huge as to appear dome-shaped. This volcano is separated from the Lahaina district by a low sandy ridge. As we coast along, with the aid of glasses I am able to detect quite a number of little secondary craters that rise out of the bulk of the mountain ; and I am told there are scores of cones within the main crater, which is twenty-eight miles in circumference. One very perfect cone appears to rise from the sea-bottom, as it is entirely surrounded by water. It is a long time since this volcano has exhibited evidences of activity, and on the last occasion its force appears to have been exerted from northwest to southeast and all along the chain from Kauai to Hawaii.

Hilo, December 27th.—This is a most enchanting little settlement half hidden beneath a wealth of flowers and a forest of bananas, bread-fruit and coffee trees, with here and there thick clusters of cocoa-nuts shooting high in air waving their leaves and rattling trunks in a very indolent and graceful style peculiarly their own. Then the deep, velvety verdure around gradually rises in green slopes and recedes far away in the distance, until the scene is closed by the "twin giants of the Pacific," Mauna Kea and Mauna Loa. Nearer, along the shore, are silvery rills leaping into the sea ; and the bay is constantly alive with canoes and boats, with their broad paddles flashing in the sun, each holding two or more chattering, gesticulating natives, offering for sale tempting tropical fruits reposing dewily in leafy baskets.

Neither is the town disappointing on closer view. The richest and most dense of tropical foliage shades and almost obstructs the pathways ; pretty huts of thatched straw, cottages, and even more pretentious dwellings are embowered in groves and shrubbery, while flowers abound in profusion on every hand ; streams of limpid water murmur in every direction, and the cool trade-winds blow breezily through the foliage—alltogether the effect is most Arcadian and quite exhilarating. Then, always when we go ashore, there are large numbers of copper-hued natives, rigged out in the

gayest colors, waiting to receive us, including a stout individual with a most important air, and a crown embroidered on the sleeve of his coat which, along with a short baton, conveys the information he is a *Kaiko* or "king's man," in other words an authorized guardian of the peace.

On Sunday I happened in front of the native church just as the congregation—something like eight or nine hundred people—was coming out. There were ancient matrons in dazzling print frocks, cut very high in the neck and very low at the heels, but unconfined by either belt or bodice, each with one or more pieces of ancient millinery appertaining to a long forgotten era, gaudily decorated and perched high upon their sinciputs and conveying the idea they had been put on wrong end foremost,—as was the actual fact in many instances ; young damsels attired in gaily colored shawls and ribbands, their nether limbs encased in a superabundance of hose and strong brogan shoes ; venerable, gentlemanly *Kanakas* in tightly fitting trousers and swallow-tailed coats unconscionably short in the waist, and ditto long in the skirts, while others were only saved from appearing in *puris naturalibus* by a flimsy shirt, or fold of *tappa* wound about the loins, breech-clout fashion.

Hawaii, or properly, Owyhee, affords a fair glimpse of primitive island life, being less visited than other portions of the group ; but the natives have, apparently, lost little by this fact. They still preserve, in some degree, their old habits and heathenish customs, and many deep-rooted and immoral practices still obtain. Nevertheless, it strikes a stranger with surprise to find these demi-barbarians can all read and write, and that the well-defined caligraphy of the Hilo nymphs will compare favorably with that of the most fashionable style of the art in young ladies' seminaries and "finishing schools" at home ; they also pay strict observance to the "Sabbath" (outwardly at least), have a general, even though slip-shod, knowledge of the Scriptures, and many possess a tolerable education. The natives, moreover, are amiable, good natured, though indolent beings, and approach nearer to the *toujours gai* than any people in existence ; nevertheless, let no one imagine from their simplicity of manners, he can win their hearts with gimcrack jewelry, glass beads, and baubles of that ilk ! Peradventure he will discover

they have as correct an appreciation of silver, and can drive as sharp a bargain as ever the Jew out of Jerusalem. Still they are obliging and will attend you all day in tramps and excursions, apparently well satisfied with a trifling present of cigar-stumps.

Among the favorite dishes is that of raw fish, and as a great rarity a *luau* dog. Under the most solemn pledges of secrecy, I was permitted to witness the exhuming of one of these animals, with the privilege of dining therefrom in case he was found palatable. These solecisms on modern cookery and viands are severely frowned upon by their white teachers and pastors, consequently it was with much caution I was taken to a small hut in the outskirts, where, when a venerable *Kanaka* had been placed on guard to prevent surprise from *Kaikos*, the entertainment began. First, a huge calabash was placed on the ground filled with the National preparation of *poi-poi*—a white mixture made of mashed and fermented taro, of the consistency of paste and a flavor of sour starch; and it is not considered the *mode* to eat it with aught else but the fingers—one, two, three, or the whole hand, according to its liquidity. The Hawaiians beat the Neapolitan *lazzaroni* in dextrous use of their digits and digestions, for whereas the latter can only suck down several continuous leagues of macaroni without a bite, and be satisfied, the *Kanaka* will make a cone of hand and fingers, and with the whirling velocity of a water-spout, takes up enough of the plaster-of-Paris-like liquid to make a thorough cast of mouth and jaws, with the energy to repeat the impression every minute! No wonder the natives, for most part, are pot-bellied! Where all the stuff goes too is a mystery. It has been suggested that they are hollow, like bamboos, down to their heels; but it is a mooted point. I tasted the *poi-poi* by way of an appetizer, and felt no further indication to make a hearty meal, especially as I knew it had all been chewed at least once in the making, and the fact the operation is generally performed by white toothed maidens, and that success depends upon the thorough admixture of saliva, did not tend to render the dish any more palatable.

By the time the *poi-poi* had disappeared, the stones and leaves were taken from a sunken oven in the corner of the hut ex-

posing the *bow-wow* to view. The warning of *cave canem* which I had seen in former years at Pompeii never struck me forcibly till now! I had heard, too, a metaphor to the effect that the "hair of a dog is good for the bite," but the moment I beheld the entire animal with his white jaws and tongue lolling, I felt no indication for even the bite—lost my appetite and came quickly away, with the intention of turning informer, and sending the *Kaikos* in among the party.

While dealing with Hawaiian *cuisine* I may as well speak of some other matters pertaining thereto: The manner of fattening these interesting and delicate animals is not dissimilar to the process of cramming turkeys with walnuts, or geese preparatory to having their livers turned into *paté de fois gras*. These animals are of a peculiar kind—short-legged and domestic. The feeder takes a mouthful of *poi-poi*, and after masticating it to proper consistency and shape, seizes his victim by the throat, chokes the jaws wide open, and drops the contents of his own oral-cavity into that of the brute—it is said violence is only necessary with puppies, for on becoming older and docile they take to this diet more kindly. I have twice partaken of *luau* turkey—fattened by the same process, and considered by the natives as only inferior to *luau* dog,—but it proved on both occasions to be a most insipid dish. The gobbler is stripped of his plumes, cleaned, dressed, stuffed with a green cabbage-looking vegetable known as *luau* (hence the peculiar title), carefully swathed like a mummy in damp banana leaves, and laid on a native oven of red hot stones, all covered thickly over with more leaves until not a chink or cranny is left for the escape of heat or steam. How long the bird is compelled to undergo this operation, I do not exactly remember, but on sitting down to the table, he was ushered in on a huge platter in his green winding-sheets, and after removing the outer coatings presented a whitish par-boiled appearance, half-drowned in a pulpy mass of *luau*, and fell to pieces at the first touch; he was steamed to death. There was not a trace of turkey flavor left, and I thought it the worst possible use he could have been put to; albeit the vegetable was delicious and in the main made amends for tasteless fowl.

(Continued.)

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

DR. G. ARCHIE STOCKWELL, Editor.

—ISSUED BY—

THE J. F. HARTZ CO.,
Publishers, Booksellers and Importers.

NOTE.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, at 270 Woodward Avenue, Detroit, Michigan. U. S. A.

DETROIT, MICH., SEPTEMBER, 1901.

DEMISE OF PRESIDENT MCKINLEY.

We stop the press to announce this deplorable and sorrowful event which, though sudden, was not altogether unexpected by medical men who had carefully followed the results accruing to the assassin's bullet.

"In multiple counsel there is safety" is an ancient and threadbare aphorism that, however true in its application to ordinary affairs, in conditions like those surrounding the bedside of the martyred Chief-Executive is apt to prove delusive. We have no wish or purpose to criticise adversely the medical gentlemen in attendance; admittedly each, individually, is a man more than ordinarily professionally endowed, and possessed of considerable more than a mere local reputation; but on the other hand we can not but feel the sufferer and his medical advisors alike were sadly handicapped by the results accruing to popular clamour, and the demand that no measures, however extraordinary, be left undone—such generally results in overdoing, especially when the patient is possessed of great prominence, and the facts are taken into consideration that, amid a multitude of counsel, clashes of opinion are possible, and no medical man, except one possessed of unusually strong personality, would, in the face of the adverse opinions of colleagues, (and the certainty of misjudgment on the part of the public and professional press), dare to act in any way independently, or to overstep in any particular the boundaries of accus-

tomed routine. We certainly would have had more hope, from the first, if the President had been relegated to the exclusive care of one or two individuals.

Also, we can not but depurate the unseemly attempts to secure advertising for self and friends on the part of individuals, which led to the importation of an alien nurse, and (at the last moment, when the fatal termination had become inevitable) of physicians from far away cities; both acts appear to reflect upon the ability of those in attendance, and particularly upon nurses and medical fraternity of Buffalo.

Again, the excluding of Mrs. McKinley from her husband's bedside, and the denial of the accustomed cigar—which was craved, and asked for, and could have worked no possible harm, while it might have obviated certain adverse phenomena—smack of the torture-chamber and mediæval superstition more than anything else:—Does not one suppose, if Mrs. McKinley is the woman we take her to be, that these procedures had her sanction, though exclusion was made to appear solely in her interest! Here we have two factors that, seemingly, in the minds of most, of little importance, may have had direct influence in securing the untoward result. Nothing is more depressing to an invalid than an enforced quiet without any form of physical or mental occupation, especially when surrounded by strange attendants. Apparently, not only was Mrs. McKinley very carefully excluded, but her spouse was left to the "rule-of-thumb" care of an alien "trained" attendant.

We learn the immediate cause of death was "gangrene of both walls of the stomach and pancreas." It seems passing strange, in the face of previous reports (emanating apparently from authority) that such condition could have existed without being suspected; the character of the pulse, to say the least, was such as to lead to a surmise that some untoward event was threatening.

One of the theories propounded is, that the bullet of the assassin, with a devilishness almost unprecedented in modern times, was deliberately poisoned, for the purpose of making the fate of the victim doubly certain. This, however, seems highly improbable.

Undoubtedly, there yet remain many facts to be made public that are of interest to the medical profession, and accordingly we await the official and authoritative report. Such data as are at hand, coming as they do through the Associated Press and filtered through the hands of non-professional editors, are altogether meagre and unsatisfactory.

The political lessons of the tragedy are many; it is hoped they will be taken full advantage of as regards the future. It is possible that the "grief of the Nation may ultimately prove the Nation's salvation" in the matter of eradicating the anarchistic and other obnoxious socialistic elements.

Fortunately the executive chair will now be succeeded to by a gentleman possessed of no less great personality than Mr. McKinley, one moreover whom the breath of scandal has not been able to touch, and whose high rectitude and honesty of purpose is unchallengeable.

Cajuput Oil.

The advent of oil of *Melaleuca Leucadendron* dates back to 1715 when it was introduced to Europe via Amsterdam. An apothecary very properly was responsible for the introduction, but it appears to have languished a century after this before London took it seriously under consideration. During the cholera epidemic of 1830 it came into wide repute, which has since been sustained, more or less, as a valuable diffusible stimulant, antispasmodic and diaphoretic. Unfortunately, owing to its high price, oil of cajuput (*Oleum Wittnebianum*) is subject to adulteration, and the vast majority of that offered in the market is

nothing but a mixture of turpentine, oil of rosemary, camphor and bruised cardamon seeds, treated with a little milfoil to give the requisite color. Oils of camphor, lavender, origanum and rosemary frequently serve for adulteration.

The true oil, when taken internally, causes a sensation of warmth in the stomach, excites the action of the heart and arterial system, and subsequently induces copious diaphoresis.

In gout and rheumatism much benefit follows both the internal and external use of this agent; in retrocedent gout it is particularly serviceable in doses of from five to six drops, frequently repeated. It is occasionally of great service, employed both internally and externally, in neuralgic affections, but is inadmissible if the malady is connected with inflammatory conditions.

Immediate relief attends its exhibition in flatulence and flatulent colic, maladies in which it has never been known to fail. In typhoid and other low forms of fever it may be judiciously prescribed as a stimulant; so too, as an antispasmodic, it proves valuable in convulsions attended by debility or anaemia.

It has been recommended in epilepsy, but its value is somewhat problematical except when the disease is associated with hysteria or with great nervous depression; but in hysteria, even in considerable doses it appears to be inferior in action to either asafoetida or valerian.

In spasmodic cholera the oil has been highly lauded, and in some instances its action has appeared to be almost magical; on the other hand it has frequently failed to be of any real benefit, which possibly may be due to the fact that an impure product was employed.

All in all, cajuput oil is a remedy of great power and value, one too much neglected in general practice; but it is demanded when this drug is employed that its purity be definitely assured.

Two Novel Claims.

In the *Medical Record* for July 13th., appears two novel communications which, undoubtedly, will attract considerable attention:

One, on the "Ætiology of Alopecia," by Doctor Delos L. Parker, of Detroit, advances the theory that this malady is due to auto-intoxication through absorption of decomposed organic matter present in the residual air of the lungs, and upon which the author bestows the title *Trichotoxicon*. Experiments upon pigeons, that were inoculated with a solution of respired air in water, seems to confirm the claim, but lack satisfactory negative and control evidence. This is a very interesting communication, whatever the verdict of the profession may be.

The second is the claim of one Doctor H. Holbrook Curtis, that he immunizes hay-fever sufferers by administering a preparation purporting to be made from the pollen of certain plants, more particularly "ragweed" (*Ambrosia trifida*), golden-rod (*Solidago odora*), etc. What is more remarkable is the fact that this paper, though read before the American Laryngological, Rhinological and Otological Society, prior to its appearance in the *Record* had been distributed broadcast as a part of the advertising literature of a well known pharmaceutical house; also the unsigned "testimonials" read very like those that obtain to patent medicine almanacs. Hence it is a matter of considerable surprise to us that this paper obtained place in a publication of the standing of the *Record*. The "ear-marks" to say the least, are those of a proprietary product, and the text affords no positive or conclusive information as to the character of the compound, while the title, is manifestly intended to be "catchy."

We opine the concern that has undertaken to market this preparation, will find it has committed a grievous error, particularly as it has hitherto been held to be immaculate in the matter of foisting upon the profession products of doubtful character.

Fighting the Nile Sudd.

The difficulties and dangers of tearing a passage through the dense masses of floating vegetation which periodically obstruct the Nile, making navigation impossible, are well described in an article which appears in the August number of *Pearson's Magazine*. A free waterway has now been opened up the river as far as Uganda. In all fourteen blocks of the sudd, as the drifting marshes are called, have been removed, the total length of the river cleared being eighty-three miles. The actual work was done by some 750 Soudanese prisoners under the direct orders of two young officers of the British Royal Navy. The following is an extract from a journal kept by one of them:

Now, as to how we do it. On arriving at a block we tie up the steamer, and set everything on fire, then cut down all the dead papyrus, which is on the sudd, until it soon looks like a very rough field. Then this field is dug into small sections four or five yards square; the trenches are dug to about two feet under water, the sudd itself being one, two, or three feet above water, and from six to ten underneath. Next we put pieces of wood round our section (cut up telegraph poles), fix a wire hawser round the section, shoved well down in the trenches and behind the posts, and bring the two ends on the steamer. The steamer then backs astern, and eventually pulls out the section, which floats away down-stream. The wire is got on board again, the poles are recovered, and the steamer proceeds for another section. The force and jerk which the steamer brings on the wire severs the roots of the section underneath from the others—or at least something does! That's the idea.

It is expected this work will have a material bearing on the fevers, especially those of malarious character, peculiar to the upper Nile region.

EDITORIAL NOTES.

Epilepsy and the Bromides.—

The bromides, unfortunately, have been widely heralded as specifics for epilepsy; yet no claim can be farther from the truth. They may temporarily suppress epileptic attacks, but only during the period in which they are exhibited to the point of saturation; they are in no sense remedial.

Again, a great deal of the trouble ac-

cruing to the administration of this class of agents is due to the selection of a poor and cheap salt. Bromides of potassium, of ammonium, of lithium, etc., are unpalatable and in the main unsatisfactory, the stomach quickly rebelling against their administration. If one must have a bromide, select one that will not upset the stomach and interfere with digestion and assimilation. The sodium salt is the only one that fulfills this demand; if dissolved in water it affords a fairly palatable, even refreshing draught; it may, moreover, be employed for a long time, in maximum doses, without any untoward results and carries with it a larger percentage of bromine than most other salts.

Epithelioma.—

A writer in the Chicago *Medical Times*, asserts as the result of "forty years experience" that extirpation by the knife is much less efficacious than the employment of a paste of zinc chloride—"for some reason the same amount of tissue sacrificed by the knife will give far better results if destroyed with the caustic; with the former recurrence is the rule, by the latter, the exception." The claim is likewise made that "chloride of zinc has as great efficacy and is as certain death to cancer cells as is quinine to malaria."—The latter part of this quotation is certainly a trifle foggy.

How about lactic acid which is practically harmless to healthy tissue, but inimical to the adventitious or neoplastic form? The latter has been successfully employed to destroy growths that recurred within three weeks after expiration, and at the cicatrix.

Oleum Jecoris Aselli.—

Doctor Jones Greer of Newport, England,* takes exception to this authorized and official synonym of cod-liver oil. He remarks:

"*Asellus* signifies a little or young ass. This word has also been extended to fishes, as the cod (*Morpha vulgaris*), which have the color of the ass; at least, Varro, in speaking of

fishes named from their color, mentions the *asellus*, or cod, as deriving its name from this circumstance. Those therefore who trust to a dictionary might not be able to tell whether *oleum jecoris aselli* meant the oil of a cod's liver or the oil of the liver of an ass. In 1839 the latter translation was actually adopted by a writer in a medical journal, who gravely told his readers that the Germans had been using oil of asses' livers for fifteen years!"

Doctor Greer's quotation, derived from a foot note on "Lac Asellæ" in *Selecta e Prescriptis*, is interesting as exhibiting the uncertainties of philological derivation.

Preservation of Anatomical Specimens.—

Pathological specimens are best preserved by the aid of formalin, which has the effect of retaining the natural colors of the preparation. Judging from the specimens shown, the result, so far as preservation of color is concerned, is everything that can be desired. The process requires both patience and experience to obtain the best results, but its introduction marks a new era in the preservation of museum specimens, the decoloration of which, under the methods hitherto resorted to, constitutes such a serious drawback to their educational value.

—Medical Press and Circular.

Equally as valuable, and perhaps even more effective, is a mixture of methyl alcohol, sulphurous acid and glycerin, equal parts. Morbid specimens placed in this fluid, after proper preparation and cleansing, may be kept almost indefinitely without either shrinkage or loss of color.

Brucine for Children.—

It seems not to be known that for patients under ten years of age brucine is a much better, and every way more effective stimulant (though milder) than strychnine.

A solution of brucine, newly made, moreover, is a very satisfactory topical analgesic: the "earaches" of children may often be effectually relieved by inserting in the auditory meatus a pledget of cotton saturated with this fluid.

Colds.—

For the relief of coryzas vegetable charcoal is suggested by Doctor T. M. Stewart, of Cincinnati. He states the remedy is particularly indicated if there is irritation of the trachea and bronchi with mucous expectoration, chilliness and light colored urine.

**The Lancet*, London.

Cystitis and Urethritis.—

One of the most valuable agents for the relief of either of both these conditions is corn silk, and to secure its best effect the medicament should be exhibited in the form of an infusion made from the freshly gathered drug, and newly prepared every couple days or so. When the *Stigmata maydis* is out of season, a "German tincture" will do very well from which to make the infusion.

The dose should not be less than one drachm, and gradually pushed to one ounce, or a half wine-glassful. That this drug is a valuable adjunct in the management of gonorrhœic cases is self evident.

Leucorrhœa and American Women.—

Not only do our women have leucorrhœa to an unprecedented extent, but they suffer from many other forms of disease of the sexual apparatus, more than women of other countries. Certainly something is wrong to produce this condition so universally, and one can not but believe our social laws need radical revision. The corset is accused of being the chief factor, but this is doubtful, for French women, even more than Americans, are addicted to the monstrosity, which has survived, in some form, several centuries. The artificial conditions of life; the improper foods commonly ingested; habits that inhibit proper tissue tonicity; and the freedom with which the sexes commingle, even at a very early age, are undoubtedly more at fault than any article of feminine apparel.

Gonorrhœa.—

The latest fad in the treatment of this form of the venereal is a solution of zinc acetate and albumen naphtho-sulphonate. It is however, no way superior to dozens of other remedies possessed of astringent and aseptic tonic properties, and vastly inferior to the hot-water douche. The error universally made, is neglect to order the patient to bed, and *keep him there* until cured! If this rule is followed almost any

of the medicaments recommended for the topical treatment of this malady are effectual.

Chinese Yeast.—

The substance known as Chinese or Javanese yeast is largely used in Eastern Asia for the fermentation of rice. This fungus, which has the power of exciting fermentation, has been made the type of an independent genus, *Amylomyces*; but Wehmer, in *The Pharmaceutical Journal and Transactions*, shows it is a true *Mucor*, and hence gives it the specific title of *M. rouxii*. It ferments levulose, dextrose, galactose, sucrose, lactose, maltose, and inulin, with the production of alcohol. It is accompanied by another undescribed species of *Mucor*, which also takes part in the fermentation of "ragi," and is named *M. javanicus*.

Alopecia.—

For some years the item has gone the rounds that pilocarpine was an effective remedy for alopecia. The fact is, however, it has never been observed to have any effect upon the disorder, whether administered internally or applied topically.

Each case of alopecia demands to be studied by itself and prescribed for according to its nature. Disinfecting and stimulating remedies are most in demand, yet it must be acknowledged that our therapeutics are for the most part powerless, and that the rare cures which result are not so much due to medication as to spontaneity.

Diabetes Mellitus, Potatoes in.—

It has long been a moot question as to whether potatoes may have a place in the dietary of diabetics. Recently this has been decided by Mosse*, at least to his own satisfaction: He declares the tubers may be given to the amount of two to three pounds daily, and as a substitute for the whole (or part) of the bread allowed, and that

**Klinische Therapeutische Wochenschrift*.

the cases which respond best to such management are those of medium intensity and of the arthritic type. Two cases are cited in evidence of the wisdom of this decision in which "there was prompt decrease in the amount of sugar excreted in the urine."

Milk, Artificial Coloring In.—

A simple method to detect artificial tinting of milk, is to precipitate the coloring matter on fibre. If anatto, for instance, is suspected, render the sample of milk alkaline with sodium bicarbonate and then partly immerse it in a strip of white filtering paper, allowing to remain several hours,—Anatto imparts to the immersed paper a yellow tint. The same method may be employed to detect methyl-orange, excepting that ammonium carbonate must substitute the sodium salt, and clean white (absorbent) wool employed instead of paper.

Curangine.—

This alkaloid, according to Boorsma, is possessed of marked febrifuge properties and derived from *Curanga amara*, a member of the family *Scrophularaceæ*, having the formula $C^{48}H^{17}O^{20}$. It is easily soluble in ethylic and methylic alcohols, aqueous acetone, and acetic ether; less so in ether, petroleum ether, carbon disulphide; and but partly soluble in chloroform and pure acetone. In water it is soluble to the extent of 6.18 per cent.

Important if True.—

The *Dominion Medical Monthly* declares that "Pressure over the supra-orbital foramen in alcoholic coma will cause a man to come to immediately," and that this method may be employed to differentiate between alcoholic coma, diabetic coma, hysterical coma and apoplexy.

We should like to have this statement more fully verified, especially as it is not an editorial utterance.

Will not some of our readers, when the opportunity offers, experiment and report?

Tuberculosis.—

An exchange declares that this disease is very common among pets—dogs, cats and parrots.

This is in a measure true, as parrots and monkeys are specially prone thereto, probably because they are kept in too confined space without a proper supply of fresh air.

The great trouble with pets is, that the average woman insists upon keeping them too warm, particularly if their natural habitat is the tropics or sub-tropics, under the supposition that equatorial regions yield a uniform heat. One of the most delicate of the Simian tribe, that escaped from its master, was known to have survived for several years in a mountain forest in northern Georgia, where ice in midwinter is no uncommon feature; and presumably it would have lived much longer but for the interference of the man with a gun.

Scanty Menstruation.—

Aside from the ordinary domestic remedies and the employment of apiole (true) and cannabis Indica, there is probably no agent superior to black cohosh, which should be administered in doses of fifteen to thirty minims at least four or six times daily. It is most effective with women living quiet sedentary lives, and that are closely approaching the menopause.

Use of Laryngoscope.—

Drop a minim of glycerin upon the mirror, warm slightly over an alcohol flame, then wipe off quickly. This will prevent the blurring of the image from condensation of respiratory vapors.

Heart Maladies.—

Potassium iodide is a valuable remedy where fatty degeneration exists as the result of debility or overwork; it is equally effective in both true and false angina.

But Most People Do.—

It is folly to expect the stomach to do the work of the teeth.

Items and News.

An Ascetic's Lament.—

Audi, doctor, me clamantem,
Trista voce lamentantem!
Aqua horrida interna
Ventrus plena est caverna!
Diaphragma, in thoracem
Aqua vi impressum, pacem
Rapit jam pulmoni, omnes
Fere noctes sunt insomnes,
Nunquam autem tulit venter
Meus aquam-phy! libenter!
Ergo doctor fac me salvum,
Aqua liberando alvum,
Ne sis Fabius Cuncator,
Veni Medicus Punctator.

—Deutsche Medizinal Zeitung.

The Tuberculin Cattle Test.—It has been declared that "if anything has been demonstrated to a mathematical certainty in experimental pathological medicine and anatomy, it is the fact that tuberculin is a sure test of masked or unrecognized tuberculosis in cattle."

This is the dogmatic, assertive side of the question. Practically, it is found the British Royal Commission on Tuberculosis, after a lengthy, careful and painstaking investigation, reported that the tuberculin test on cattle was untrustworthy.

There are some people in this world who would continue to assert that night was day if they stumbled at every step for want of light.—LAWRENCE.

The Practitioner and His Finances.—

The man who neglects to secure his financial position by careful investments, insurance, and prompt collection of bills, may arrive at the age when he ought to cease active practice, and yet be obliged to continue to make his daily living. Too often keen, able practitioners develop into querulous, jealous, disappointed old men, because they are obliged to compete with the younger men when they ought to have retired with honors.—*Medical News.*

The Photo-Bacterium.—

Pure cultures of the photo-bacterium—which is the cause of the phosphorescence of the sea,—can be obtained by placing a fresh haddock, or herring, in a two per cent. salt solution and keeping it at about seven degrees above freezing. In a few days the

fish and all the fluid give off a pale greenish light, made more brilliant by adding a little sugar. The cultures can even be photographed by their own light.—*The Lancet* (London.)

Ozone, Uses of.—

This agent is coming into use for many purposes. While it artificially ages liquor, and spirits generally, it improves coffee, and is of advantage in the treatment of tobacco, of which it improves the aroma. It seasons wood for sounding-boards of musical instruments, and also has the effect of protecting it from the ravages of moisture and temperature. It is used for thickening oil in the manufacture of linoleum, and its action in bleaching linen is familiar to most of us.—*Western Druggist.*

The Country Physician.—

While there is much truth in the statement that, "Where there is nothing great to be done, a great man is impossible"—when it comes to medicine, to be a modest country doctor, surrounded by a confiding constituency, is no mean position to occupy, and might well fill the cup of ambition for the best equipped man.—*Clinical Review.*

Night Work.—

This is a much exaggerated evil of the physician's life. In the first few years of city practice there is not a superabundance of either day or night calls, and to one who falls asleep full of apprehensions as to the success of the future, the jingle of the telephone breaks in upon his troubled dreams like sweet music.—BENEDICT (*Lippincott's Magazine.*)

Practice of Medicine in Iowa.—

The State Board of Medical Examiners has refused to recognize diplomas from Barnes Medical College, of St. Louis, as entitling their holders to enter the examinations of Iowa.—*Northwestern Lancet.*

Pomegranate, New Alkaloid of.—

Piccinni has isolated from the bark of pomegranate root, a new alkaloid that is a liquid and likewise miscible with water.—*Chemische Centralblatte.*

Book Reviews.

King's American Dispensatory. Edited by Harvey Wickes Felter, M. D., and John Uri Lloyd, Phr. M., Ph. D.: Eighteenth Edition and third revision. Cloth, royal 8 vo.; pp. 2291; Two volumes. Price, \$9.00. The Ohio Valley Co., Cincinnati.

This is, by long odds, the most complete epitome of *materia medica* and pharmacology ever issued from the press: Its scope is such as to dwarf all other dispensatories, and the information conveyed (notably), has been edited with a care that seldom accrues to any work of this class. It practically puts to shame the National and the United States Dispensatories with which, revision, for years, has meant little but the embodying of a few new preparations, often of no merit.

The original King's Dispensatory was narrow, empirical, and uncertain in scope and adjuncts, and moreover strongly tintured with the tenets of Thomsonianism and the so-called "botanical practice;" and this has obtained in some degree to all subsequent editions up to the one now under consideration—"Eclectic" in name, for the first time only has this work reached the high plane indicated by its title.

The new volumes are broad, scientific, and in every way reliable. Professor Felter is well known as an authority on therapeutics, especially the branch that more particularly comes within the scope of his school, and that he has not slighted his subjects the text bears ample evidence. Professor Lloyd, too, stands in the front rank of American chemists, botanists and pharmacologists, and moreover has justly earned a reputation for scientific ability and exactitude such as accrues to but few. Hence these volumes represent the acme of pharmaceutical, botanical, chemical and therapeutic accuracy and advancement.

The work as a whole is a worthy one, and no professional man who has accurate therapeutics at heart can afford to be without it.

Professor Lloyd makes the explanation that in 1880 he promised Doctor King to revise the pharmaceutical and chemical sections of the American Dispensatory if such became necessary; that he did not understand the magnitude of the undertaking which constituted practical rewriting. He adds that monetary considerations could not have induced him to undertake this enterprise and, that the exacting researches necessary have been altogether a work of love.

We have only one adverse criticism, namely: A number of drug preparations are spoken of as "specific;" this word is nowhere explained and apparently finds place solely with the view

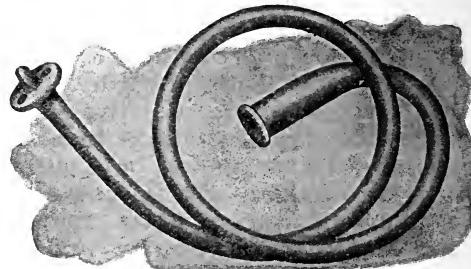
of advertising the preparations of one house, and the work thus, practically, becomes an adjunct of an individual Eclectic school; we understand these "specific" drugs to be of the same precise standard as Pharmacopeal fluid extracts except, perhaps, that in some special instances they are derived from the green, crude product.

This fact, however, does not in any sense militate against the actual value of the work, as before mentioned, though it certainly is the reverse of good taste.

New Instruments and Devices.

COMBINATION SELF-RETAINING CATHETER AND DRAINAGE TUBE.

This illustrates an instrument that, though not entirely new, is a modification of an existing form that cannot fail to secure the full appreciation of the medical fraternity.



It is a thin, flexible velvet-finished rubber catheter, with an elastic button at the end so that it may be drawn over a stylet for the purpose of facilitating introduction into the bladder. The button or bulging portion enables it, likewise, to be employed with certainty as a self-retaining catheter for either sex. It is also equally useful as a drainage tube, not alone for the bladder but for the chest cavity after the operation for pyo- or hydrothorax—it is valuable in any cavity where compression is not so great as to interfere with its lumen.

The value of this device can hardly be overrated in cases of cystitis and urethritis with enlarged prostate, or where, through sensitiveness, constant catheterization becomes unbearable and the employment of cocaine (as it almost always is in the urethra) a menace.

This is a soft rubber catheter made in two parts; or in other words is composed of two distinct tubes joined together in such a way that introduction is not only simple but facilitated.

The advantages of the design are, it is thoroughly aseptic and furnishes a large and continuous lumen for the efferent tube carrying off the urine.—This is especially valuable when the urine is very dense or heavily laden with pus.

It is also available for irrigating the bladder in cystitis with solution of potassium permanganate, as recommended by Doctor Valentine of New York.

Therapeutic Brevities.

Indication for Venesection.—Bleeding may be employed to good advantage in:

Diseases of the nervous system, meningeal inflammations, cerebral congestion, and apoplexy:

Diseases of the kidneys, where there is generalized oedema with uræmic symptoms—here venesection acts both as a depleting process and as a sudorific:

In circulatory troubles consecutive to cardiopathies,—it unloads the venous system and augments arterial tension:

In pneumonia its efficacy is remarkable and recourse should be had thereto at the outset; it eases the patient by suppressing pain in the side and rendering the respiration and circulation freer; likewise diminishes the engorgement and pneumonic exudate.—If the heart should ultimately flag, there need be no hesitation in repeating the operation.

In chlorosis:—One or more bleedings at from four to five weeks' interval constitute a sovereign remedy, and the more the blood is altered, the more the operation is indicated.—Note: A simple method, little known, of appreciating the alteration of the blood without the hæmatoscope and the hæmatometer is, collect a few cubic-centimetres of blood in a straight tube and allow to remain for twenty-four hours; two-thirds should then be occupied by the clot, above which should be seen a fine red layer composed of leucocytes, while the upper third is occupied by serum of a straw-yellow color; the more the appearance differs from this, the more the blood is altered, and the more is bleeding indicated.—KACZER (*Wiener Klinische Rundschau*.)

Glaucoma.—This condition is frequently relieved by improved nutrition, with correction of any existing errors of refraction; also, sometimes, by iodide potassium, associated with the topical employment of eserine drops.

Mild and insidious cases of inflammatory character, between paroxysms, may exhibit but little tension; such require iridectomy for the drainage of the engorged vessels during the paroxysm, and constitutional treatment to aid in the elimination of accumulated debris in the tissues.

Inflammatory glaucoma, excluding trau-

matic cases, should be accepted as a manifestation of many diatheses; and while iridectomy may be necessary, it should not be performed to the exclusion of the all-important constitutional measures. Moreover, as the operation can accomplish nothing beyond the establishment of drainage of the vessels of the iris and contiguous structures into the aqueous chamber, the amount of iris removed should be small. The operation should not be repeated, and in any case is only supplemental to constitutional measures.

In all cases of increased tension of the eye, with peripheral contraction of the field and engorgement of the retinal veins with or without cupping of the disc, constitutional treatment is essential; and, above all, strict attention to general nutrition and habits of life.—REYNOLDS (*Ophthalmic Record*.)

Dysentery.—This is an acute infectious disease, and like most of its class has a tendency to get well in time; still is of sufficiently serious nature to demand treatment. It is hardly necessary to review the many drugs which have been recommended; the majority are useless, in many cases pernicious. Large doses of ipecac were very popular at one time, and, doubtless, efficacious in many instances.

The cause must first of all be eliminated: Next disinfect the mucous membrane and restore the normal glandular secretion, which is best done by administering magnesium sulphate in drachm doses, every three hours, combined with ten drops of dilute or aromatic sulphuric acid. The beneficial effect is shown in a few hours: The pain becomes less; the tormina and tenesmus rapidly subside; the pulse rate diminishes, and the temperature is lowered. When these effects are apparent, the Epsom salt may be gradually withdrawn.—CRUIKSHANK (*New York Medical Journal*.)

Uterine Deviations.—The use of glycerin and ichthyol tampons in the treatment of retro-displacements, and particularly in those complicated with the perimetral inflammation, where it can be persistently and thoroughly carried out, is of great value. Glycerin, by its affinity for water, depletes the tissue; ichthyol, five or ten per

cent. (in glycerin) will alleviate pain and hasten absorption. Replace the uterus and introduce one tampon into the posterior vaginal fornix, packing quite firmly;—this will press the uterus anteriorly; then introduce another (larger,) straight into the vagina against the anterior lip of the cervix, to hold the first in place, and to raise the uterus, thereby increasing the ante-position and also improving the circulation by straightening the pampiniform plexus of veins. Finally, in treatment of uncomplicated retro-deviation by a simple operation, advance the anterior vaginal wall higher upon the uterus.—SHIMONEK (*Milwaukee Medical Journal*.)

Laryngeal Tuberculosis.—Congestion of one vocal cord is very suspicious of tuberculosis, and a week's treatment by potassium iodide will exclude syphilis.

The prognosis is not so grave as was formerly supposed; the laryngeal process may heal even with progressing pulmonary tuberculosis. No sharp, irritating foods or drinks should be allowed, and the patient should be forbidden to use the voice, even in a whisper, communicating entirely in writing until cicatrization has progressed for a few weeks or months. When it is found that the parts do not become congested or swollen from whispering, then the use of the voice can be gradually resumed. Treatment may be by means of solution of lactic acid, not oftener than every one or two weeks. If possible remove all the diseased tissue by an endo-laryngeal operation. In advanced cases with much stenosis, tracheotomy is preferable to laryngo-fissure.—SCHMIDT (*Thérapie der Gegenwart*, Berlin.)

Giaourdi.—Boil milk for one hour, constantly stirring. When it has reached the desired consistence, add a fig ferment and reduce the temperature to 113° Farh. The result is a smooth, semi-solid, easily digestible milk-food, which while not materially different from "bonny-clabber," possesses many advantages over the latter—the fig ferment produces a soft, smooth coagulum that is the more digestible because of the lack of lactic acid. This preparation has proved very satisfactory in gastric ulcer, pyloric stenosis and neurasthenia.

The ferment may be made by soaking

a dry fig over night in three ounces of water, next morning adding a trace of rennet along with a few drops of lemon juice. Many Swiss cheese-makers employ the fig ferment as an addition to rennet, since thereby a much finer flavored and more homogeneous product is obtained.

Giaourdi is in general used in Greece and the Levant.—ACHILLES ROSE.

Gleet and Gonorrhœa.—Triturate five drachms of acetanilid and 120 grains golden seal with three ounces of glycerin and water sufficient to bring the finished product up to one pint. This should be employed as an injection, after shaking well, at least three times daily, following immediately upon micturition, the fluid being retained in the urethra for at least four or five minutes. Under ordinary conditions a cure may be expected in from fourteen to ninety days.

If the patient is emaciated, the bowels should have due attention; also a tonic may be administered, something of the character of the following:

Strychnine sulph...	2 grains
Hydrastis, powd....	3 drachms
Glycerin	3 ounces
Ginger, ext. fid.....	3 ounces
Alcohol	5 ounces
Water to make....	16 ounces

A teaspoonful every three hours or as demanded.

—WASHBURN.

Bees for Rheumatism.—Some years ago an Austrian physician advanced the theory that the virus of the bee sting is an infallible remedy for acute rheumatism, a fact that receives unquestionable confirmation from a custom of the country people in Malta. Bees are plenty in this island, and their stings in such repute that resort to this primitive method of inoculation has been a common practice, in severe cases of rheumatism, for generations, with most satisfactory results.—*Mediterranean Naturalist*.

Hydrogen Peroxide.—The activity of this chemical is promoted, when employed externally or internally, by the addition of hot water. A teaspoonful added to a half glass of the latter and ingested just prior to meals, exerts a powerful remedial influence upon catarrhal gastritis.—ELLINGWOOD.

Chorea Complicating Pregnancy.—

Chorea is not an accidental complication due to the occurrence of a previous infantile chorea, but in the majority of cases appears for the first time, and to a great extent is induced by this condition, although pregnancy alone can not be regarded as the direct cause; various conditions such as heredity, previous infective diseases, etc., are predisposing factors, and some nervous shock is usually the starting point.

The prognosis is more grave than in early life. In severe cases ether and chloroform may be given, as in eclampsia: Pinard suggests producing almost continual sleep (waking the patient only to administer food), by means of chloral hydrate; when improvement appears, the doses can be diminished, but should be continued until this desideratum obtains. —NEWELL (*Medical and Surgical Journal, Boston.*)

Indolent and Stubborn Ulcerations.— After an ulceration has partially healed, it is often found, when a certain stage is reached, that it no longer improves. One of the best applications for this condition of affairs is oxyde of zinc ointment every ounce of which is fortified with ten grains chloral hydrate—the chloral seems to stimulate and promote the granulating process.—*Medical Summary.*

[In many instances the delay in healing is due to the tension of the parts. Here strapping with adhesive strips, in a way to secure relaxation of the tissues in the immediate neighborhood of the ulceration, secure results that are almost magical.—ED.]

Asthma.—This condition, regardless of cause, may sometimes be relieved by applying a bag of ice to the neck over the pneumogastric.—SANGER.

[It might be well to try also the application of cantharidal collodion in the same locality.—ED.]

Trachoma.—Excision of the retrotarsal fold is the best method of treatment, an operation that always proves successful and can be performed without difficulty.—KAN (*Vratch.*)

Uterus, Influence of on Bladder.—In view of the intimate vascular and nervous, as well as mechanical and topographical, relations of the uterus to the bladder, it is advised that in all cases of vesical trouble in women, the uterus should first be examined, and existing lesions corrected. Relief of the bladder symptoms may be obtained in this way by curettage, uterine dressings, or pessaries, or at the time of menstruation by relieving pelvic congestion by diuretics, laxatives, hot baths, or even local bleeding. —VERGELY (*Medical and Surgical Monitor.*)

Sodium Chloride, Lack of in the Economy.—When the system is deprived of its normal supply of salt the nervous tissue becomes more susceptible to medicinal salts, in consequence of which extremely small doses becomes effective. In this manner, for instance, thirty grains of sodium bromide given during twenty-four hours proves remarkably helpful in severe cases of epilepsy. Probably this is also true of the alkaloidal salts.—RICHET (*L' Union Médicale.*)

Urinous Odor, Correction of.—Essence of turpentine taken internally in ten-drop doses, three times daily, by persons afflicted with urinary incontinence, in a short time does away with the disagreeable ammoniacal odor, replacing it with the flavor of violets. This treatment can be continued without inconvenience for several weeks, and is only contra-indicated in gastric catarrh and nephritis.—*Kansas Medical Journal.*

Influenza of Childhood.—

Sodium benzoate.	30 grains
Phenazone	30 grains
Sparteine sulph..	2 grains
Paregoric	4 drachms
Liquorice extract	1 drachm
Tolu syrup to make	2 ounces

Shake well: A teaspoonful four times daily for a child of six to eight years of age.

—*Merck's Archives.*

Furuncles.—Salicylic acid in the form of ointment or paste, constantly applied, will relieve the pain and tumefaction. Early resort thereto will usually secure abortion of the initial purulent accumulation; applied later, it will at least hasten and promote resolution.—HARTZMANN.

Cocaine Muriate.—In small doses this drug slows the pulse rate, but this effect persists only for a brief period; is in fact ephemeral. Larger quantities, as might be expected, intensify this action, and if the toxic effect is produced, arrest of the heart in diastole results; trigeminal paralysis is also induced. The slowing of the pulse depends on irritation of the vagi, since it can be inhibited by the simultaneous employment of atropine.

Large doses induce speedy paralysis of the cardiac ganglia, preceded by elevation of blood-pressure, induced by the stimulation of the vaso-motor centres as well as by a direct action upon the organ itself.—WASSERZUG.

Pilocarpine in Eye Maladies.—Gratifying results are obtained in the treatment of interstitial keratitis, traumatic purulent-iritis, vitreous opacities, and retino-choroiditis. Some place great reliance upon the drug in toxic insanity supervening upon influenza, auto-intoxication, and similar processes, the brain rapidly clearing after two or three free perspirations. Apart from its action hypodermatically, pilocarpine (or the fluid extract of jaborandi) in small doses by the mouth, has been found of value in degeneration of the vitreous. The persistent nausea so common after the use of the drug is usually relieved by small doses of chlorodyne.—HANSELL (*Philadelphia Medical Journal*.)

Rectal Prolapse in Children.—A tapering piece of ice, about three inches long and one inch in diameter (at the largest end), is wrapped with iodoform gauze, and its point pressed gently against the center of the prolapsed mass until it is replaced; the ice tampon remains in the rectum without the use of any retentive bandage, provided it is pushed in far enough. A fresh piece of ice is employed in this way after each act of defecation. This treatment soon cures the prolapse, and seems to act by emptying the blood-vessels and heightening the contractility of the rectum.—HAJECHE (*Deutsche Ärztliche-Zeitung*.)

Varicose Veins.—Inject Squibb's ergot by the side of the vessels, then give by the mouth one-eighth to one-half of a grain of barium chloride to contract the arterioles.—BARTHOLLOW.

Dropsy.—*Apocynum Cannabinum* is an old remedy possessed of immense value, and when given for certain direct indications proves unfailing. Cœdema of superficial cellular tissue, wherever found and however extensive, is a condition in which it will not fail.

Personal observation proves it to be a heart tonic of considerable value where there is flaccidity of cardiac muscle coupled with an atonic and relaxed condition of the general system; with a tendency to adiposity and plethora, especially when effusion appears, it will produce excellent results in small doses, say from one to three drops. In others, particularly if relief from the dropsical effusion is imperative, large and hydragogue doses may be given.—ELLINGWOOD.

Constipation in the Young.—Constipation is invariably due to errors in diet, either through the mother's milk or from improper artificial food. Massage the abdomen gently with inunctions of cod-liver or of castor oil. Study the diet and regulate it according to the modified teachings of Rotch. Use glycerin injections or suppositories, as necessary. In older children, feed prune juice, stewed dried peaches, dates, orange juice, and other laxative foods, and practice the same massage and inunctions. Give less drugs and practice more mechanical and dietary hygiene, and you will have more satisfaction.—*Medical Summary*.

Hay Fever.—Where no hypertrophy or permanent obstruction is present, but simply a turgescence of the mucous membrane, use the following:

Arsenous acid.....	1 grain
Strychnine sulph.....	2 to 3 grains
Belladonna, ext.....	4 grains
Zinc phosphide.....	4 grains
Gentian, ext.....	20 grains

Make twenty pills and give one three times daily.

In conjunction employ a menthol preparation locally. This is effective in any form of nasal neurosis.—DABNEY (*Northwestern Lancet*.)

New Use for Black Cohosh.—In painful conditions existing in or around the eye or ear, the external application of the cimicifuga tincture will often give immediate relief.—*Homœopathic Recorder*.

Gymnemic Acid.—This is the active principle of *Gymnema sylvestris*, and is a greenish-white powder with pungent, sour taste, only slightly soluble in water. If a small quantity of the tincture, made by dissolving the drug in alcohol, be placed upon the tongue, the taste of sweet things and of bitter things is entirely destroyed; no other effect is produced, for taste is as sensitive as ever to other substances. If the mouth is rinsed with a twelve per cent. solution of the acid before taking any bitter substance, the latter will not be tasted.—*Chicago Medical Times.*

Solidago Virgaurea.—This is a foreign species of golden rod, one used as a domestic remedy, for backache and diseases of the kidneys generally, in Germany, for centuries. Homœopathic physicians prescribe for renal pain, or pain in circumscribed spots in the region of the kidneys; for pains in back, extending forward to the abdomen; in dysuria, difficult and scanty urination, dark urine with sediment (either of the phosphates or blood or pus); useful also in pronounced nephritis.—RADEMACHER.

Ergot and Uterine Inertia.—An excellent way to give the medicament is, to dilute a teaspoonful of the fluid extract in fifteen teaspoonfulls of water, in a glass, and give a drachm every ten minutes until improvement occurs. The treatment should be begun early to secure the best results; and even then the remedy is inferior to *cannabis Indica*, providing a reliable preparation of the latter can be obtained.—*Medical Review* (Birmingham).

Bilious Colic.—*Dioscorea villosa* is undoubtedly as much a specific in bilious colic as is quinine in intermittent fevers. The dose of fluid extract is from five to thirty minims—which may be doubled in emergency; of the solid extract, one to four grains every one to four hours, according to urgency. The remedy is useful in flatulence of the bowels.—BACON.

Uterine Fluxes.—Hydrastine is the most valuable of all remedies. Use hypodermatic injections of five to ten drops of the hydrochlorate in ten per cent. solution. There is no pain or discomfort from the operation.—FALK.

Tonic, a Valuable.—Phosphate of soda combined with ergot affords favorable results in melancholia, hysteria, adynamia, and chlorosis; it overcomes the great constitutional depression of the algid stage of certain fevers. Sodium phosphate alone has been employed in the cerebral torpor of senility, but the combination with ergot increases its efficacy. The general indication for the administration of the mixture is functional debility of nervous origin.—LUTON (*Journal de Médecine de Paris.*)

Hæmorrhoids.—More than once I have found great relief or temporary cure to speedily follow upon the free use of distilled extract of hamamelis as a rectal injection. The quantity used is from two to four drachms, frequently, during the day and evening. No unpleasant results accrue. It may be that those who have been disappointed trusted to internal administration or too scanty local application of the drug.—DE WATERVILLE.

Warts and Moles.—Twice daily touch each with enough glacial acetic acid to saturate without allowing to touch the healthy skin. If this results in soreness, too much acid has been employed; suspend for forty-eight hours, and again resume. The warts and moles turn brown, rapidly disappear and leave no scar. There is no danger. Do not tell the patient what is being used, though it may safely be placed in his or her hands, with cautions.—TAYLOR.

Cranberries.—The pure, fresh juice of raw cranberries, given freely, either undiluted or with an equal part of water, is an excellent means of relieving the thirst in fever and moreover is markedly antipyretic. In the thirst and vomiting peculiar to cholera it is even more effective. In fifty cases in which ice and narcotics failed to make the slightest impression, cranberry-juice, in small but repeated doses, rapidly checked both vomiting and nausea.—GORANSKY.

Nasal Catarrh.—Most ozaenas and catarrhal discharges are readily relieved by the exhibition of berberis. If the Highmorean antrum is implicated, relief is prompt if the remedy is administered in full doses.—HEITZMAN.

Nitrous Oxyde and Ether.—The advantages of the combined method of using nitrous oxyde with the Bennett inhaler, followed by ether, have been shown it in all cases operated on during the last eight months in Doctor Kelly's private hospital. It seems to possess so many advantages to the patient, operator and anæsthetizer, and so few disadvantages, that it has become a distinct part of the operative *technique*.—*Philadelphia Medical Journal*.

Iodoform in Lupus.—Excellent results can be obtained by the hypodermatic injection, at a distance from the seat of disease, of iodoform dissolved in a neutral petroleum. Improvement generally appears after twenty-four or forty-eight hours, and is well marked at the expiration of five or six days.—*Lavalier (Journal des Maladies Cutanées et Syphilitiques)*.

Heart Maladies and Alkaloids.—The best authorities are united in discouraging the use of the active principles of digitalis, strophanthus and convallaria, in the treatment of cardiac disease. The best effects are obtained by employing the tinctures, preferably the "mother tinctures" so-called, of the Homeopath.—*Medical Gazette* (Bombay).

Influenza.—Infusion of boneset is one of the best remedies for the treatment of *la grippe*, inasmuch as it reduces temperature, acts as a sedative and alterative, and appears to be grateful to the patients.—*BRCDNAX*.

[The foregoing has our hearty endorsement.—ED.]

Stomach Anodynes.—Atropine checks the gastric juice almost completely, but morphine increases it. When secretion is excessive, as in ulcer, morphine is contraindicated, and one of the belladonna preparations will act better.—*BIEGEL (Thérapie der Gegenwart.)*

Cystitis, Chronic.—*Rhus aromatica*, ammonium muriate, potassium citrate, combined, do well, but the dose of the ammonium salt must be large to be of real or lasting benefit.

I always advise the urine be rendered alkaline by some potassium salt combined with a vegetable acid.—*JOSEPH ADOLPHUS*.

Scarlatina.—Few cases of scarlet fever are not benefited by the constant, almost continuous, exhibition of small doses of tincture of aconite and belladonna—say one-fourth or one-half minim of the former, and one-sixth minim of the latter. Potassium bichromate is very satisfactory for the angina, and daily inunction by means of cacao butter should not be neglected—this latter affords nourishment, favors desquamation, and reduces the fever.—*STOCKWELL*.

Hydrastis.—This is a very good remedy in constipation. Hughes, in his "Pharmacodynamics," recommends a drop of the mother tincture in water before breakfast. A globule of the first attenuation, once or twice daily, has been given by me on many occasions and I can recall no failure.—*CHOURDBURY*.

"Bone" Felons.—To abort before suppuration has set in, cover the swelling to the thickness of an eighth of an inch, with citrine ointment. This must be kept in place by a non-absorbent bandage, and put on fresh every eight hours, until all signs of inflammation have disappeared.—*LUMMINS (Medical Summary)*

Gonorrhœal Buboes.—Apply, thrice daily, with friction, one part each of oil of sassafras and oil of peppermint, dissolved in sixteen parts strong tincture of capsicum.—*WASHBURN*.

Albuminuria.—Try one drop of a one per cent. solution of nitro-glycerin, three times daily. This often will relieve the patient in a few days.—*Northwestern Lancet*.

Mosquito Bites.—Naphthalan is an effective remedy for mosquito bites. Its action on the poison is effective and specific.—*VOGES*.

Uterine Inertia.—Strong hot coffee, drunk without seasoning, will usually prove effective.—*JOSEPH ADOLPHUS*.

Diphtheria.—Local treatment is cruel and brutal whenever and wherever applied.—*JACOBI*.

Medical Progress.

Disease Odors.—

Of the specific odors of disease two very marked cases come to mind: One, a young, buxom, red-cheeked woman, whose menstrual discharge was accompanied by such a pervasive odor that few could stay in the same room with her; the other, a man who suffered from profuse fetid perspiration confined to the axillary regions—the fluid could be seen constantly exuding, of a consistence a little heavier than normal perspiration, the disagreeable odor it yielded being very penetrating, so much so as to pervade the whole room and adhere to the furniture for hours after his departure.

The ammoniacal smell common to the aged, and due to retained or dribbling urine is well known. Berard says that, apart from the excretions, an abnormal odor of the skin tends to draw flies, and that however little noticeable it may be it denotes death is near; and Boërhaäve held that a cadaveric odor always presages death.—Althaus tells us that Skoda was hardly ever led into error by this indication,* and Compton also laid great stress upon this as a clinical symptom; but the smell given off during the "death-agony" is totally different from the death odor (that of putridity) and is universally admitted to be specific.

The odors obtaining to sex are vastly different, thus in man it suggests mushrooms, in woman codfish.*

In gout the skin secretions take a special odor which Sydenham compared to whey; it is sour, or at least sourish, as there is an excess of ammonia. In rheumatism it is acetoformic, particularly in the regions of engorged articulations (Monin); it is a sour-smelling, acid perspiration.

In diabetes the smell is sweetish and

*[An odor of semen persisting about the body and apartment of an old man, even if he does not appear seriously ill, appears to be indicative of speedy dissolution. This is invariable, though why, except it is in a sense cadaveric, we are unable to explain. It most frequently obtains in connection with suppression of urine, and in the majority of cases points to prostatic disease of long standing.—Ed.]

†[The odor of a perfectly healthy, cleanly woman should be that of thyme; the codfish odor is evidence of lack of personal cleanliness as regards the sexual organs, or of a diseased condition.—Ed.]

mawkish, as of hay, according to Latham, "acetone" says Picot, and "midway between aldehyde and acetone, being due to a mixture in variable proportions of the two bodies," according to Bouchardat.

A musky odor obtains to several maladies, notably peritonitis, jaundice and icterus; and a stale, sour-beer odor to scrofulosis.

The pyæmic person has a sweet, nauseating breath, with perhaps a flavor of new-mown hay.

In milk fever the smell is distinctly acid; in typhoid, musty, often with the odor of blood; in typhus, ammoniacal and mouse-like, which latter also obtains to favus; in intermittent the odor is that of fresh-baked brown bread; yellow fever has a cadaveric smell, or like the washings of a dirty gun-barrel.

In measles it closely resembles fresh-picked feathers; in diphtheria, is sickening and gangrenous—an odor that is absolutely pathognomonic; in smallpox, according to severity and stage, it ranges from that of the fallow deer to the dreadful one of the whole menagerie, or it may be that of burning horn or bones.

Hysteria usually develops an odor of violets or pine-apples; sudamina, that of putrid straw; scabies, mouldy; anaemia and cholera, ammoniacal (Drasch, Parker) and the discharges have either a semen or mushroom flavor.

Otorrhœa has a peculiar, clinging, long-lasting odor that once observed will never be forgotten; so, too, is the odor of a hen-roost that obtains to ozenas and bad chronic catarrhs. Gangrene has an old, dead-meat smell, as have some cancers at certain stages, —if there is much pus from an actively breaking-down, malignant growth, and especially in sarcomas, it is more like decaying fish.

At the onset of the plague the odor is sweet (Diemerboëck) or honey-like according to Doppner.

The atmosphere surrounding the chronic onanist will have a rotten mushroom-like odor, and an ill-kept libertine will combine this with a cod-fish smell.—CLARKE (*Homeopathic Medical Recorder*.)

Value of Meat Extracts.—

Doctor A. McGill, in a report to the Inland Revenue Department, Ottawa, Canada, observes that much has to be done by experimental physiologists before final

pronouncements can be made upon the food value (if any) of the flesh bases, which, in most instances, form the chief portion of the nitrogenous material in meat extracts. The bases certainly differ among themselves in food value, and, of course, if this is true of the flesh bases, it is, *a fortiori*, true of the various forms in which proteid matter occurs in these preparations, viz., as peptones, proteoses, acid albumens and so forth. Doctor McGill's experiments suggest that a part of the nitrogen in some meat preparations exists as urea. Urea certainly can have no food value, nor can one really understand how the allegation that it is of use as a stimulant can be justified. Nature seems to have provided for its prompt elimination from the system, and it is certain that any failure to get rid of it by way of the kidneys results in serious disturbance of the vital functions, and may end in death by uræmia. No practical method has been discovered by which a sharp analytical line can be drawn between the nitrogen present as urea and that present as creatin, creatinin and xanthin. It is evident that the flesh bases cannot be called food stuff in the proper sense of that term. They represent a stage of the process by which complex nitrogen compounds are changed to simple ones, supplying the energy so set free to the animal organism in the form of vital force. They may still have some food value, since they are not excreted as such, but undergo further simplification, till they appear as urea. It is certain that their food value is very much less than that of proteids proper. When once the urea stage is reached, the urea must be promptly got rid of. The blood is the vehicle by which nutritive matter that has been digested and made soluble is conveyed to all parts of the body; and it is also the vehicle by which waste matter is conveyed to the lungs and other excretory organs to be eliminated. Flesh bases are always present in the blood, though in small amounts. They are much more largely present in muscle tissue, and when fresh lean beef is treated with hot water, these flesh bases are the chief material taken into solution. Apart from any possible nutritive value which they have, these flesh bases undoubtedly possess a stimulant action on the system analogous to that exhibited by the alka-

loids of tea, coffee and cocoa, and it is beyond question that to this stimulating effect, rather than to any true nutritive power, they owe such value as they possess.—*British Food Journal*.

Bacteria a Vital Necessity.—

The presence of certain bacteria in the air is as necessary as oxygen for the continuance of vital processes in animals. When animals are confined for some days in a chamber of sterilized air, some die, and those taken out alive expire shortly afterwards or, if they survive, show symptoms of extreme lassitude and weakness. These results are due neither to starvation, nor to toxic exhalations, nor to the presence of CO_2 in the sterilized air. The urine excreted by the subjects is found to be abnormally rich in leucomaines, while the quantity of urea present is very low, showing that the processes of oxydation, which normally go on in the tissues, were materially retarded. The oxydizing ferments which have been shown to be normally present in the tissues are supplied by bacteria, which gain access to the blood and, probably, to the leucocytes in the lungs. The actual cause of the debility and death in the animals experimented on may be considered to be the enormous accumulation of insufficiently oxydized products which exercise a toxic influence. Bacteria are, therefore, considered to be essential to the maintenance of animal life.—*KIJNIZIN (Pharmaceutical Journal and Transactions.)*

The Earliest Human Ovum.—

Leopold recently exhibited microscopic sections of the youngest human ovum ever detected. The uterus of a woman, aged thirty, was removed for cancer of the cervix, the interior carefully examined, and an undoubted ovum the size of a lentil found making a prominence on the surface of the uterine mucous membrane, which was hypertrophied in its neighborhood. The periphery of the ovum was bounded by a deep groove devoid of mucous membrane. After careful inquiries it was concluded that the ovum had reached the eighth day after conception. Great pains was taken to secure successful sections. The arrangement of the villi, and the opening of the arterioles of the endometrium into the intervillous spaces, came out very clearly.

Kanthack has recently added to the

nuseum of St. Bartholomew's an instructive specimen of a very early human ovum in its membranes.

Histological study of the human embryo and its envelopes during the first few weeks of development is much needed. We must not rely too far on homologous structures in the lower mammals, where the anatomy and physiology of the genital tract differ in important details.—*British Medical Journal.*

Voluminous Retro-Pharyngeal Abscess.—

A boy of eleven months began to suffer from cervical adenitis with suppurating glands, and incision liberated a large quantity of pus. Later it was noticed the child had trouble in swallowing, which steadily increased until brought for examination. A visible bulging of the posterior pharyngeal wall was discovered, almost touching the base of the tongue and filling the bucco-pharyngeal cavity, causing difficulty in swallowing and respiration. This was a voluminous retro-pharyngeal abscess consecutive upon suppurating cervical glands, which was immediately incised, the child being held on the knees of an assistant, and immediately bent forward. Notwithstanding these precautions, the pus was so considerable that it caused asphyxia. The pharynx and larynx were well mopped out, and the child being laid flat on a table, rhythmical tractions of the tongue and artificial respiration were practiced, along with flagellation of the cardiac region. In fifteen minutes respiratory movements began. Complete recovery in six days.—TRAVER (*Revue Hebdomadaire de Laryngologie.*)

The Twentieth Century Baby.—

The baby of to-day, as a matter of sober fact, is threatened with manifold drawbacks to development short of actual extinction, by the wholesale substitution of the artificial for the natural. Instead of the most perfect food in Nature, mother's milk, we find a host of artificial substitutes, each one of them, calculated to rear an infant with the brains of a Newton combined with the frame of a Sampson. How often, alas! the outcome of all these costly cares is a being of stunted body and limited intellect, unfitted to play a soldier's part in the battle of life. This question of food strikes deep into the physical welfare of a race, and there can

hardly be a more serious National problem than how to rear this Twentieth Century baby of ours in strength and happiness. There is a vast deal of nonsense written and taught about the proper way to clothe, nurture, and tend babies generally. The best basis is that of plain milk diet, either from the breast or from modified cow's milk: For the rest, those ills that are preventable should be prevented. Most of the mischief done in the nursery is the result of *attempting to do too much!* It would be an important step toward the stability and future of our race were the laws of health to be taught in our schools, with a special class on nursery management for the girls' classes.—*Medical Press and Circular.*

Urine, Oxalates In.—

Calcic or calcium oxalate is rather a common sediment, often mistaken microscopically for a cloud of mucus; it is found in both acid and alkaline urine, especially after the patient has eaten freely of rhubarb, tomatoes and other vegetables rich in oxalic acid. The crystals are usually octahedral in shape, giving the appearance of a square crossed by two diagonal bright lines, like the back of a square envelope; they are much smaller than those of the triple phosphate, from which they are further distinguished by their insolubility in acetic acid. A much more rare form of calcium-oxalate crystal is that resembling a dumb-bell.

Hippuric acid is occasionally met with as a urinary sediment, in the form, microscopically, of fine needles or of four-sided rhombic prisms with beveled ends and edges. A deposit of hippuric acid is met with most frequently after the ingestion of benzoic acid or of certain aromatic vegetables—cranberries, for instance.—HILL.

Differential Diagnosis.—

Acute general miliary tuberculosis and basilar cerebro-meningitis at times simulate typhoid. In the former, attention and minute examination of the patient, and the course of the morbid phenomena, quickly dissipate any doubts; in the second, the previous history of the disease, the mode in which it commenced, the course of the temperature, the absence of abdominal symptoms, and the early appearance of delirium or coma, do not long allow hesitation in the diagnosis.—HOMEM.

Fresh Air for Infants.—

The most salient point made by Doctor Holt in his able address before the Cleveland Medical Society, recently, was the importance of fresh air for infants. It is a striking fact that this one thing makes not only a perceptible but an enormous difference in the mortality statistics of hospitals. Of the essentials, good food, and fresh air, the latter is by no means the least important, and the lack of this often determines the death-rate of seventy-five to ninety-five per cent. in foundling asylums. It is not reassuring to note the fact that the wealthiest as well as the most intelligent people are taking the greatest pains to exclude fresh air from their houses. The modern house is furnished with weather-strips to prevent draughts, and with either steam or hot-water heaters which provide no ventilation at all, or a furnace with an air-shaft that draws its supply from the hall, thus preventing an influx of pure air from without,—all of which is well calculated to conduce to infant mortality.—*Cleveland Medical Journal.*

Alopecia.—

The most unpleasant and unsightly cases are the atrophic forms, in which coarse thick hairs are found on a dry scalp without baldness—cases that are practically hopeless. Nor is there much hope where young men become prematurely bald at the same age as when this condition overtook their fathers,—which would seem to indicate that the malady is of an inherited rather than an infectious nature, though it rarely attacks girls. Perhaps the reason why the female sex suffer less from alopecia is the fact they give more attention to their hair, and wear more suitable and better ventilated headgear.—*La Semaine Médicale.*

Typho-Malarial Fever.—

In spite of "eminent" authority to the contrary, this term is the proper designation for those asthenic forms of remittent fever with typhoid symptoms in which the typhoid bacillus is not present in the blood. It is a typhoid fever complicated by pre-existing malarial infection or a malarial fever complicated by a typhoid.—LILLIE.

Pneumonia.—The appearance of labial herpes is a favorable sign in congestion of the lungs.—*Denver Medical Times.*

Gelatine Suppositories, Base for.—

Gelatine forty parts; glycerin, twenty-five parts; water to make 100 parts, or, if a softer mass is required, 120 to 130 parts. The product is said to be well adapted for use with alum and other salts. The addition of twenty-five parts of powdered acacia or dextrin in place of an equivalent amount of water renders the mass more suitable for use in summer or in a warm or moist atmosphere. In either case the gelatine should be soaked in 200 parts of water until soft, the glycerin (and gum if required) added, and the whole heated on a water bath until complete solution is effected and the excess of water evaporated. Stir gently while heating, and keep the temperature well below boiling-point. If air-holes appear in the mass on cooling, it must be re-heated with 100 parts of water and the whole again evaporated to the required bulk. The moulds should be oiled before filling, and if made of metal, should previously be heated to about 122° Fahr.—*The Chemist and Druggist.*

Foreign Body in Maxillary Sinus.—

Mignon, of Nice, reports an interesting case in which a young man, with suicidal intent, discharged a revolver against his temple. A few days after the incident, as no symptoms of reaction occurred, an examination by the radioscope was attempted, and it was found that the bullet was lying loose within the left maxillary sinus.—*Archives de Laryngologie.*

Invertin in Grapes.—

There is present in the juice of all kinds of grape a sucrase, in quantities sufficient to invert the entire amount of saccharose present, without the assistance of any organic acid. The "invertin" is not present in wines attacked by bacterial diseases, and disappears entirely in wines which have been strongly oxydized.—MARTINAUD (*Pharmaceutical Journal and Transactions.*)

Chorea.—

This is a form of rheumatism—*cerebral rheumatism*, in fact—as is well borne out by evidence.—DYCE DUCKWORTH.

Osteomyelitis.—The chief diagnostic point is the acutely sensitive spot near the junction of the epiphyses.—FUNKHAUSER.



DETROIT MEDICAL JOURNAL

Original Articles.

COMPLICATED PREGNANCY REQUIRING SURGICAL INTERFERENCE.

BY T. K. HOLMES, M. D.

Among the many perplexing cases that come under the care of the general practitioner, few appeal to his skill and sympathy more strongly than cases of pregnancy complicated with pelvic or by abdominal conditions requiring surgical interference. The natural desire for children, and the dread all good women feel of any operation that jeopardizes the life of an unborn child, make them reluctant to submit to what is often the only chance of life for either. Pregnant women often bear surgical operations well. Recently, several cases have come under my care that have encouraged me to deal with these complications in a radical way, and with well founded hopes of success, such as could not have been entertained a few years ago.

For convenience and clearness, it will be better to divide these cases into two classes: Those in which there is a possibility of saving both mother and child, and: Those in which the nature of the complication offers no hope of saving the latter.

A woman, about thirty years of age,

had been ill for a couple of weeks but had not consulted a medical man. There had been a chill at first, and fever had been thought to be present more or less every day thereafter until the final attack (on the twelfth day after the chill) that nearly ended her life: During these days also, there had been some pain and tenderness in the right iliac fossa.

She was four months pregnant. On the morning of the twelfth day of illness, she was attempting to sweep, when a sudden pain in the abdomen caused her to sink upon the floor. She was lifted to a bed and Doctors Wright and Millen, of Wheatley, sent for. They found her in great pain and suffering from shock. There was a decided fulness on the right side of the uterus, perceptible on the outside of the abdomen; but it gradually grew less and, in a few hours, disappeared altogether in the general fulness that became apparent over the whole abdomen. The physicians quite reasonably decided that it was a ruptured tubal pregnancy and Doctor Wright telegraphed me to operate.

I saw her about 4 P. M., and on opening the abdomen in the median line was surprised to see a copious discharge of thin, watery pus, and on searching for its origin located it at the appendix, which

was discovered to be bent sharply on itself and in an advanced stage of disease. It was at once removed, and subsequently the entire abdominal cavity flushed until the water returned quite clear; a drainage tube was then inserted at the lower angle of the wound and the incision closed. The drainage tube was removed by Doctor Wright after forty-eight hours, and recovery occurred without any unusual symptom. The patient was eventually delivered of a healthy child, at full term.

The second patient was referred to me by Doctor Dewar, of Windsor. She had not been wholly well for several months, manifesting, every day, a temperature a degree or two above normal and a pulse, generally, of from 90 to 110. She was nearly four months pregnant when I first saw her, and there was a mass at the right side of the uterus and somewhat behind it, not very large, but tender and immovable, and in a position to obstruct the passage of a child at full term. The history of the case led me to think it was an abscess with very thick wall, and I advised that it either be removed by immediate operation or an abortion produced and the operation performed later. She was subsequently seen by one of the most skillful surgeons in Detroit, whose opinion and advice coincided with my own. She was placed in Harper Hospital (Detroit), by her regular attendant, and the request made that I should operate, which I did, having the advantage of the advice and assistance of Doctors Dewar and Donald Maclean.

The mass proved to be a solid fibroid growth, springing from the right side of the uterus and a little posterior to it, and very near the junction of the cervix and body. It was enucleated by splitting the capsule, and the cavity closed by continuous silk sutures, placed deeply so

as to arrest all haemorrhage, and without drainage. There was a good deal of vomiting for two or three days, but she made a good recovery and was delivered at full term without any unusual occurrence.

The third woman had borne two children, and came to consult me on account of a swelling on the right side of the abdomen as large as a cocoanut: She was four months advanced in a third pregnancy. The tumor was smooth and moveable, but its presence gave her a great deal of pain.

Presuming, because of its rapid growth, that it might become dangerous before or during confinement, I advised removal; and having gained her consent, opened the abdomen and succeeded without difficulty in getting it away. It proved to be an ovarian cyst with a long pedicle. Recovery was rapid and she carried the child to full term and was delivered without any unusual occurrence.

A patient, forty years old, had been married only about eight months when she was referred to me by Doctor McKenzie, of Kingsville. Examination revealed an irregular uterine fibroid, the uterus filling the pelvis and extending above the umbilicus. There were symptoms of pregnancy, but the most urgent distress arose from pressure symptoms.

On opening the abdomen great difficulty was experienced in getting the mass out of the pelvic cavity sufficiently to secure the uterine vessels; and it was only by employing pressure from below upwards, through the vagina, traction being made at the same time from above by means of volsellum forceps, that this was accomplished. After complete hysteromyectomy had been made, a critical examination of the uterus revealed a four months' foetus.

There was considerable shock for a few hours, but she rallied well under the in-

fluence of saline transfusion and made an excellent recovery.

The next case was referred to me by Doctor Davis, of Kent Bridge. She was a young woman of healthy appearance, married only a few months. After missing one menstrual period by about fourteen days, she was attacked with pain and flowing, and soon after there was discharged what was thought to be decidual membrane. These symptoms continued for a couple of weeks when there appeared, in addition, a slight rise of temperature and great nausea.

Examination revealed a solid mass behind and to the right of the uterus; and the cervix was pushed to the left and upwards behind the pubes. A diagnosis of extra-uterine pregnancy was made, and she readily consented to an operation, which was performed as soon as complete preparation could be made.

On opening the abdomen there were found, in the walls of the uterus, seven fibroids, varying in size from a walnut to a large orange, when it was at once decided to remove the whole organ.

On dividing the cervix a portion of soft bloody tissue was caught in a piece of gauze and the wound thus protected from infection. After removal the uterine canal was split open and the foetal mass found partly in the right tube, and partly interstitial, occupying the adjacent wall of the uterine body. Recovery was satisfactory in every way.

The sixth patient was referred to me by Doctor Hanks, of Blenheim. She was thirty-four years of age, had been married about a year, and was thought to be pregnant about four months. She first consulted Doctor Hanks on account of sudden severe pain in the pelvic region, closely resembling the pain and faintness so commonly observed in partial rupture of the sac in tubal gestation. Doctor Hanks, on examination, discovered a tumor in

the right iliac fossa and decided that the indications all pointed to extra-uterine pregnancy, an opinion I corroborated. On operation the tumor proved to be of a rather soft nature, but was enucleated without difficulty, leaving the pregnant uterus. It was impossible, in closing the wound in the uterus, to control all oozing, as the tissue was so vascular that at every puncture of the needle it bled freely. After much delay, and when the haemorrhage seemed to have stopped, I closed the abdomen without drainage, and for a month all went well. At the end of that time labor pains came on and she miscarried. Again all went well for nearly another month, when she was suddenly seized with most violent abdominal pains, and vomiting became persistent, accompanied by extreme tympanitis. These symptoms developed so severely and suddenly that it was decided to reopen the abdomen to ascertain the cause thereof, and if possible afford relief. As soon as the anaesthetic was begun, her condition became so alarming that it could not be continued, and the operation was abandoned. She sank rapidly and died four hours after. Permission for an autopsy could not be obtained.

All surgeons who have had experience in the performance of myomectomy know what great care is necessary in closing the wound in the uterine wall so as to completely arrest bleeding. In a pregnant uterus the difficulty is greatly increased, and especially in a case like the last, where every prick of the needle causes persistent haemorrhage. It is impossible to determine with certainty the cause that induced fatality, but it may have been from slight haemorrhage which afforded a medium for bacterial infection.

Unless a fibroid occupy a position that would render delivery at term impossible, I believe it is better not to interfere until after the puerperium.

Chatham, Ontario.

MASTOID OPERATIONS—DISASTER FROM WAITING FOR GROUP SYMPTOMS.*

BY DOCTOR C. B. STOCKWELL.

Suppurative disease of the mastoid, especially the acute form, when left to itself is as treacherous as a latent volcano. Forces are at work which may destroy life in a space of time limited not by days, but by hours.

Authorities on the subject are faulty: The grouping of symptoms is magnified: Too little importance is attached to single symptoms. While we are waiting for a combination or sequence of signs, death may come; and yet, if proper significance could be attached to one or two symptoms and these be made important, doubt would be cleared up and life saved.—Several loose bolts are not necessary to induce the wreck of a piece of machinery. As an illustration the following is in point:

A professional friend, thoroughly conscientious and observant, had under his care a case of acute suppurative inflammation of the middle ear coming on as a concomitant to an attack of *la grippe*. After a few weeks the gradually diminishing suppuration ceased, but some *malaise*, deafness, and a temperature slightly above the normal, remained. Within a day or two the patient walked to the physician's office in the morning:—In the evening a violent headache arose on the affected side followed by meningeal symptoms, and death in forty-eight hours. Previous to these symptoms none of the following group signs usually given were in evidence:

Pain in mastoid region:

Tenderness on pressure:

Hyperæmia and œdema of soft parts covering the mastoid process:

Prolapse of the upper and posterior cutaneous wall of the auditory canal in the neighborhood of the drum membrane:

Abundant discharge of creamy pus through the opening in the membrana tympani:

Facial paresis or paralysis:

Extension of the inflammation to the soft parts below the mastoid process (Bezold's symptoms):

Phlebitis of the mastoid emissary vein:

Brain symptoms, and:

Evidences of the tenth symptom usually given, namely: Septicæmic phenomena—which were, however, suggested in a vague way by *malaise* and slight fever.

Some hours after the fulminating attack, slight tenderness was detected below the apex of the mastoid process. Although the case was so devoid of symptoms, yet an operation six hours before death revealed a suppurative inflammation in the mastoid, and a thrombosis in the adjacent sigmoid sinus. The authors fail to furnish scouts for such a battle, and when disaster comes upon us without warning, all is lost.

Another illustration:—

One month after the fatal termination of the above case, I was called upon by a gentleman, aged sixty-nine years who five or six days before, had a slight attack of *la grippe* followed by marked deafness in the right ear. There was, perhaps, some slight middle-ear inflammation (although the drum membrane had a whitish appearance), but there was never any perforation followed by pus, nor even bulging or redness of any part of the membrane. The symptoms for three weeks were: A small inflamed and sensitive area in the posterior wall of the canal near the outer part of the osseous portion attended with a varying amount of pain: Some pus over the corresponding side of the head in the parietal region between sundown and sunrise, and: Marked deafness. There was no fever discoverable; no chills; no pain, tenderness or swelling over the mastoid region; no bulging of the posterior wall of the external meatus near the tympanic mem-

*Read before the Michigan State Medical Society, Battle Creek, May, 1891.

rane and, as I have already stated, no purulent discharge from the ear.

Rest was strictly enjoined. Pledgets of cotton wool dipped in carbolized oil (1 to 8) were placed in the external meatus, after irrigating with hot water; these gave the most comfort to the inflamed wall. Contrary to directions, the patient indulged in a little exercise (about the house and out upon the walk), owing to the insignificance, as he thought, of the symptoms. There was a lingering feeling of lack of strength and ambition,—of nervousness that was not natural.

No treatment improved the deafness.—As no other cause seemed reasonable I attributed it to a blanketing of the sounding-board of the ear—in other words to a closing up and filling of certain mastoid pneumatic cells which augment the sense of hearing. The nocturnal pain over the parietal bone was undoubtedly due to sensitive nerve waves reflected from an irritated point in the temporal bone along the fibres of the great sensitive nerve of the head and face—the trigeminal.

The persistent inflammatory condition over the outer osseous wall of the external meatus, showed an existing periostitis and, almost to a certainty, a deeper osteitis in the adjoining portion of the mastoid: This was strongly supported by deafness, nocturnal pains, and unusual nervousness.

To my mind the conditions called for surgical interference: An operation was safe, and thereby disaster could be avoided; further, the relief to the inflammatory process would the sooner restore the hearing: On these grounds I advised operation which, however, was not acceded to until ten days later when, after a little fever—half a degree,—for two or three days, and a slight chill followed by a little perspiration, it was decided upon.

Upon incising the soft tissues over the mastoid bone, I found them perfectly nor-

mal; but when an opening had been chiselled through the outer table, which was dense, I came upon an abscess cavity, one-half inch in diameter, in that portion of the bone adjacent to the inflamed area in the external meatus. This being cleaned out, in two weeks the hearing was restored almost to its normal condition, and the wound was virtually healed.

The location of the disease was evidently due to the passage of micro-organisms up through the Eustachian tube, the tympanum, the antrum, and into the pneumatic cells of the mastoid. Here, a hyperæmia being produced, the inlets were closed and a local inflammation followed which resulted in the abscess.

In conclusion:—The “authorities” should encourage earlier operations and justify them in the light of fewer symptoms.—The position held in most text-books, up to date, in the words of one well known author is, virtually, as follows: “Our diagnosis must invariably rest upon several items of evidence, and especially upon the sequence of these symptoms and visible alterations.” Judging by my own observations and experience, this position has resulted in many typical mastoid cases being listed under obscure brain lesions; as a consequence they have gone on to a fatal issue unrecognized and neglected.

With the liability of such disaster coming upon our patients and ourselves, while waiting for the “several items of evidence,” as quoted, on the one hand, and with the safety, on the other hand, attending the present *technique* in surgical operations, I repeat, with emphasis, we should be justified in not waiting for a group of danger signals before freely opening the pneumatic cells of the mastoid and antrum and, thereby saving lives which otherwise might be lost.

AORTIC ANEURYSM.

BY DOCTOR DAVID E. HILLS.

Recently, on the part of surgeons, has been evidenced a tendency to interfere in cases of cardiac injury and a readiness to resort to radical methods in dealing with thoracic aneurysms. In this connection the report of a case of a large aortic aneurysm, surviving three hours after rupture, may be of interest.

A man sixty years of age, powerfully built, in apparent robust health and who had been about town as usual, returned to his home at six P. M., and made several violent expiratory efforts to clear the stem of his pipe. Suddenly severe pain was experienced, referable to the region of the right shoulder; and at nine P. M. the aid of a physician was invoked, but without avail, as the patient died within a few minutes.

A post-mortem revealed a quantity of sanguineous fluid in the right pleural cavity; the heart greatly hypertrophied, with a large, infiltrated, blood-clot in the upper portion, and the pericardium adherent over nearly the whole surface.

Removal of thoracic viscera and separation of adhesions exhibited a large, fusiform aneurysm involving the ascending and transverse portions of the arch of the aorta, four-and-three-fourths inches in diameter, that had opened into the pericardium through a longitudinal tear, two-and-five-eighths inches in length: The walls of the aneurysm and adjacent aorta were extremely friable and contained much calcareous deposit; there was a large organized blood-clot in the aneurysmal sac. The heart, with its pericardium, and the portion of the aorta involved in the neoplasm, weighed thirty-two ounces; its circumference was twelve-and-one-fourth inches; length seven-and-five-eighths inches; diameter four-and-three-fourths inches; long circumference eighteen-and-three-eighths inches. The heart muscle was thick and firm.

The extraordinary survival, after first symptoms of rupture, was doubtless due to the extensive and firm pericardial adhesions which permitted of only a limited

haemorrhage. No record of diagnosis of aneurysm was obtainable.

Philip James, of London, records an almost parallel case, wherein the patient survived five hours after rupture: Nissim, of France, chronicles another that lingered nine days: Kelynack, a third, which survived for four hours; the rupture in this instance was two-and-one-third inches long: Comstock reports a death on the sixth day following the first symptoms of what proved to be a rupture of a very small aneurysm that burst into the pericardium through a one-fifth inch opening.

The ætiological factors of aneurysm include, in general, those causes productive of degenerative changes in the blood vessels or great increase in arterial tension. Syphilis and alcoholism are responsible for a large percentage of cases; tuberculosis for a few; age, sex, heredity, and occupation, furnish the chief factors in some cases, and; a traumatism but rarely.

The symptomatology of small aortic aneurysms may be obscure: Pain, reflex cough and singultus may result from pressure on the recurrent laryngeal or phrenic nerves, or pressure on trachea or œsophagus may interfere with respiration or deglutition: A characteristic expansile pulsation may be felt or seen if the aneurysm approaches closely the thoracic wall: Auscultation may reveal a soft blowing murmur over the sac with transmission of the sound along the artery, and the finger or sphygmograph may detect marked alteration in the character of the pulsations of the radial and carotid arteries or the abdominal aorta. Large aneurysms may cause great intra-thoracic pressure, and may even erode the vertebrae, ribs or sternum.

A differential diagnosis must exclude abscesses, tumors, neuralgias, and cardiac lesions. Careful auscultation, observance of pulse modifications, expan-

sile nature of the tumor, transmission of murmurs along the course of the artery, and the use of the Roëntgen rays are the main dependencies, and essential to determination of the seat and extent of the aneurysm.

Prognosis naturally should be guarded, for spontaneous cure has occurred in cases where the sac was very small. Fatal issues may result from rupture of sac, pressure on important organs, erosion of vertebræ, and pressure on the cord; or emboli may be carried to the brain and induce fatality.

Treatment may include administration of potassium iodide and such other medicines as will favor coagulation by slowing the blood current,—including Tuffnell's method of prolonged rest and restriction of fluids; McEwen's plan of scratching the inner coat of the sac with fine needles; introduction of coils of fine wire through small canulæ, with or without the use of electricity, and, in some instances; ligation of the subclavian or carotid, which has on certain occasions proved successful.

Ramauge, of Buenos Ayers, recently advised introduction of fine watch-spring wire of palladium, or alloys of palladium and iridium, since wires of these metals do not lose their elasticity or become oxidized in blood serum, do not even form salts affecting the newly-formed coagulum, as is the case with other metals heretofore used.

The case reported emphasizes the importance of most careful and thorough examination of all patients, thereby insuring an early diagnosis, and enabling the practitioner to warn against over-exertion; also as permitting prompt application of treatment that will tend to improve the prognosis and prolong life.

Conservative lines of treatment will commend themselves in cases presenting

no symptoms of immediate danger, but in cases with more urgent symptoms a greater readiness to resort to surgical treatment would seem justifiable, and perfection of *technique* in these operations will, no doubt, justify their application.

Of operative procedures, results at present seem to favor the introduction of suitable wire with electrolysis, or the ligation of the subclavian or carotid. It would be of interest (and perhaps of much value) to experiment on animals, or suitable cases in the human, with paraffin of relatively high melting point, introduced directly into the sac through fine hypodermic needles.

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THE PHILLIPINE ISLANDS FROM HEALTH STANDPOINT.*

BY GRAHAM E. HENSON, M. D.*

Too much has been written concerning the Philippine Islands from a standpoint of health, and so varied have been the stories published, as the result of interviews with returned officers and soldiers, that I feel a few remarks concerning the actual situation may be of interest.

While not claiming the group to be an ideal health resort, I can emphatically state that they are not unhealthy, as is generally believed in the United States.

The last report to the Washington authorities by General MacArthur, evidenced that but ten per cent. of the troops serving in the Division, were or had been on the "sick list;" and these included those in the hospitals and under treatment for wounds. While in civil life, this might be considered a large percentage, from a military standpoint it is the reverse, and barely more than the average of soldiers serving under the most favorable conditions. As a rule the soldier makes no effort to keep off of the sick re-

*Acting Assistant Surgeon, U. S. Army.

port, since that offers some immunity from the drudgery and detail of duty. Again, he has no consultation fee to pay, consequently presents himself for treatment for the most trifling ailments.

During my service in 1898 and 1899 at the State Camp (Michigan) at Island Lake, at the camps in Pennsylvania, and those in Georgia, Tennessee and the Carolinas, our percentage of sickness was rarely less than ten per cent. and more often higher, even up to twenty-five per cent., and this under circumstances much more favorable to good health than those under which our troops are serving in the Philippines. The continued extreme heat, and until recently the long marches, including scouting day after day under a broiling tropical sun, are not particularly conducive to the preservation of health; and under such circumstances to have so low a percentage, certainly speaks well for the Islands, and hardly carries out the assertions made by some that they are cursed by an unhealthy climate.

Looking at it from another standpoint: Compare the diseases here most prevalent with those to which the population generally is subject to at home. Ninety-eight per cent. of all illness here is due to malaria and dysentery; eliminate these two factors and the invalid rate will be brought to a minimum. Typhoid fever, pneumonia, and the infectious diseases are practically unknown: In Northern Luzon they are never seen, and in lower Luzon and the Southern portions of the Archipelago they are few in number. To be sure, small-pox is practically endemic throughout the Islands, but is of mild form and confined, almost exclusively, to native children.—Our soldiers are so thoroughly protected by repeated vaccinations that the malady seldom appears among them. The general vaccination of all natives--now under way,—will do

much toward eradicating this disease among all classes and ages.

It will thus be seen that malaria (in its different forms) and dysentery are practically the only ills. With these lessened, as they certainly will be in the near future, (in fact, as I will show later on, are already on the decrease) it will be hard for the calamity howler to find much fault with our new Eastern Possessions from health and sanitary points of view.

Again, let me call attention to the mortality of the two most prevalent diseases. While the æstevo-autumnal form of malaria is seen in some sections of the Islands, it is by no means common; it is most prevalent in the Provinces of Nueva Ecija and Nueva Vizcaya; and during two months service in the former, I saw but three cases of the malignant type, with but one fatality, out of a total of one hundred and fifty odd of the other forms. In the Provinces of Cajayan, Isabel and the several coast districts, the malignant form is never seen; only the benign quotidian and benign tertian prevail. Those suffering with these forms are seldom ill more than three or four days, the disease responding rapidly to a few doses of quinine. The mortality is of course, *nil*. There is no doubt that a few grains of quinine taken daily, act as a prophylactic against infection.

Malarial cachexia, too, is very seldom seen here; in fact, is so rare that it has no bearing upon this communication whatever.

Among the troops, dysentery, in its protean forms, has caused more havoc than malaria, gun-shot wounds, and all else put together: The mortality from this malady has been high in the past, ranging from six to ten per cent.; but the causes have now been practically removed, and the last three months has seen a marked decrease of all forms of bowel

trouble all over the Islands. This is due, largely, to changed circumstances, and the different modes of living inculcated since the capture of Aguinaldo, which act has practically ended all hostilities. The chief source of infection was the water the men were compelled, at times, to use for drinking purposes. Time after time observation and scouting parties have been without food for twenty-four and forty-eight hours, marching and fighting in the intense heat, in mud, perhaps up to their hips, with no water except the stagnant fluid that was to be found in ditches and overflowed rice fields.

Again, after a long fast and a hard march, many times they would reach a ranch, famished and fairly exhausted, and in this condition would resort to the native *bino*, the only liquid obtainable, and which at best, is merely a high grade of wood-alcohol—a fluid more potent in inducing bowel troubles than the dysenteric poison *per se*. Even when good water was obtainable, the men would often turn to this poison, seeking relief from exhaustion in stimulation; and I have more than once traced a long siege of dysentery directly to the use of this beverage. Latterly, however, the temptation to indulge in native beverages is not so strong, and consequently the great majority retain their health. The other main source of infection—bad drinking water,—now that the men are no longer constantly in the field and dependent upon the ditches for potable fluids, is also in great measure removed. In all garrisons the water, whether considered good or bad, is filtered and properly sterilized.

The existing conditions favorable to the propagation and infection of malarial poisons can be greatly remedied; as already remarked, work to this end also is well under way. The Civil Commission recently appropriated a large sum of money from the Insular treasury for drainage and

sewerage purposes, and with improved sanitary surroundings, satisfactory results will accrue, and malarial diseases correspondingly decrease.

Those who have claimed the Islands to be unhealthy, manifestly have not studied the conditions; and many of these, coming direct from civil life, have fallen into the error of making comparison with the conditions to which they were accustomed at home, without making due allowance for the differences in climate, surroundings, etc. Especially is this true as regards the army. Again, it is not a fair comparison to measure the health of troops in active service by the sick reports of garrisons and then attribute the cause to the climate; nor is it a fair comparison to take the native population, in unclean and unsanitary surroundings, with their poor manner of living, and compare with that of a people living well, and under proper and well regulated sanitary conditions.

It will soon be demonstrated that soldiers, doing garrison duty in the Philippine Islands, now that their conditions are more favorable, are, all things considered, just as healthy a body of men, and with just as low a percentage of mortality in their ranks, as those doing similar duty in the United States.

Alcala, Luzon:

Phillipine Islands,
July 8th, 1901.

Correspondence.

EXTRACTS FROM THE JOURNAL OF A NAVAL MEDICAL OFFICER.

(Continued.)

Among other novel sights, I saw with calm pleasure the native boys climb cocoanut trees by tying the big toes together with a wythe of bark; then aided by hands and knees they ran up the tall, waving columns and down came bounding the nuts, and a small dusky imp at my elbow whisked off the husks with his teeth, cracked a hole in

the shell—up! up! gurgle! gurgle!—and the cooling and delicious draught found its way down my throat. Pine-apples, too!—large, perfumed, luscious fellows!—thirty for a quarter dollar, and considered exorbitantly dear at the price! Then there is the spreading bread-fruit, with the queerest of dark green leaves; but my juvenile impressions of this fruit I long ago discovered were entirely erroneous, for instead of being like bakers' loaves, or even French rolls, they are as different as possible, enveloped in a coarse, thick rind, tinged with yellow, with white meat, about twice the bulk of pippins, and when properly roasted, with the taste of an insipid potato.

I have been perfectly sheltered too, in a pelting, pitiless shower, by an extempore umbrella constructed of two banana leaves, and sipped water from native cups, made in a trice from a goblet-shaped leaf snatched at the roadside; and on a certain occasion, when wearied by a long walk, I threw myself beneath the heavy shade of a fan-leaved pandanus and submitted to the *loammi-loammi*, which is a more delicate operation than ordinary massage or the Turkish mode of shampooing, and when the operators are laughing native girls the sensations are far pleasanter.

They commence a running succession of pinches from heel to shoulders, accompanied by kneadings, and pokings with the tips of their fingers; then selecting a clear space, they begin a diaphason of light thumps and blows, interspersed by a gentle trip-hammer movement with outer sides of the hands; now slow, now fast, faster—like flashes of light,—until the cadence dies languidly away in soft, melodious tapings, leaving the one operated upon in a quiet frame of mind and the body greatly refreshed. As the natives are inclined to corpulency, as the result of constant over-feeding—especially in the matter of *poi-poi*,—the *loammi-loammi* is in great request as a means of restoring comfort after repletion, and that the gormandizing performance may be repeated *ad libitum* without personal inconvenience.

At Sea, December 28th.—We are now on our way back from Hilo to Honolulu, and will stop for a day or so at Lahaina on the island of Maui. I did not visit Mauna Loa and the famous crater of Ki-

lauea, for the reason that time and circumstances were unpropitious, though I may yet get a week's leave, and run down in the usual fashion (from Honolulu) to Punalow, which latter port offers a more comfortable journey than from Hilo, there being a good wagon road to the crater.

There is a heavy sea on—as there usually is near these islands,—the whole Pacific contributing; and the surf on the beaches is a wonder, even when there is not a breath of air stirring, or a ripple on the water outside. Usually the trade wind blows strong in these channels, and in olden times, before the advent of steam, a week was often required to traverse a distance that is now covered in less than twenty-four hours.

Lahaina, December 29th.—We did not come to anchor until after dark, hence the picturesque character of our surroundings were not appreciated until the sun had again risen. We noted some of the smaller islands, notably Molokai—where the leper settlement is,—Lanai, and Kahoolawe—close to Maui—all comparatively barren, mountainous, sparsely inhabited, and in strong contrast to the larger ones of the group which are, for the most part fertile, and devoted chiefly to the culture of sugar-cane.

As in most of these island ports, there is (properly speaking) no bay or harbor here, and so we were compelled to drop anchor half a mile from the town. The coast line is stretched out like a range of mountains,—rather like a single, much-broken mountain, complete in itself and about 2,000 feet high,—the sides of which are hollowed into sharp ridges and *palis* or precipices, while the deep cuts that in places nearly divide the heights cause the latter to appear inaccessible. Along the shore is a rapidly shelving beach, and behind a rather broad, level space, thickly covered with cocoa-nut palms, bread-fruit trees, etc.: Then come the fields of cane; and finally the town, built on the hillside so as to be a conspicuous object from the sea. This fertile strip extends along the shore for seven or eight miles and is from one hundred to five hundred yards in width, and was, originally, an old coral fringing reef. It is protected by a barrier reef, the latter broken through in one or two places

so that small boats can pass through the seemingly continuous line of surf. Just beyond the barrier reef, and inside a rude breakwater of loose stones, is a little wooden wharf, affording facilities for the few fishing craft that hail from here, and likewise protection from the on-shore winds.—When the winds are off sea a landing in an unprotected haven, in these Islands, is a very difficult matter.

The town, consisting of one long street or road, has a most dilapidated appearance, inasmuch as many of the houses are uncared for or deserted. Thirty years ago this was a flourishing place, the headquarters and refitting point of the whaling fleets; but the decline of the cachalot (sperm-whale) industry has ruined it, while the ships that frequent the Arctics in pursuit of the northern "fish" resort to Honolulu. There are a number of spacious, two-storeyed dwellings surrounded by large yards of trees, exhibiting an odd likeness to New England farm residences of the better class, all in the last stages of desolation and decay.

Though there is not much rainfall here—it being the low side of the Island and the high ground keeping off the showers,—there are numberless pools and ditches of stagnant water, covered with green slime such as is seen in the small canals of Holland, and breeding some malarial fever; hence all the cane grown in this vicinity is dependent upon irrigation, and the fields and patches, which are interspersed all through the back country and even the town itself, are supplied by pipes and canals leading from streams in the hills.

One sugar-mill receives all the cane that is grown, and collects by means of a railway about seven miles in length; but the product is all required to be sent to the United States to be refined.

The chief beauty of the Island is to be seen at sunset from the sea, at which time the light from the west falls directly on the steep hills. The sunset itself, the color of the skies and the shadows of the land, produce such a remarkable combination that only an artist's brush and colors can do it justice. All the lower ground is of the most vivid and brilliant coloring, ranging from the yellow of the cane to the deep, bright green of the cocoanut, banana and bread fruit; above there seems

to be but little vegetation and hardly any trees except in the deep ravines; but where not covered with a dull green undergrowth of wire-grass, the great tracts of hillside present all possible shades of red and brown. All this country is volcanic, and when one gets close to one of these reddish patches, which appears smooth enough at a distance, it is discovered to be decomposed lava rocks of all sizes—generally speaking the size of a cask,—and so thick that there is no possible chance for even a plough to pass. Of course this land is useless, until cleared and irrigated, when it immediately proves very fertile. It is utterly futile to try to describe the beauty of this scene; especially as viewed from the distance of a mile or two, when the coloring is absolutely more gorgeous and more theatrical than anything I have ever seen.

January 10th.—We spent "New Years" here and were quite feted, for the King's sister (Princess Liliuokalani, otherwise known as Mrs. Dominis) gave a ball the evening before, which also was the birthday anniversary of Queen Kapiolani. It certainly was a unique function, from all I could hear, for I was not present; however, I saw the old year out, and the new one in, from the deck of the ship, and incidentally witnessed a curious naval custom that I never happened to know of before, viz.: Striking eight-bells twice in succession at the midnight hour—once for the expiration of the old, and once for the birth of the new.

On New Year's day I attended a *luau* by royal invitation, which turned out to be a Sunday-School pic-nic, all the native children of the district being in attendance, and H. R. H. Liliuokalani, the lady patroness, who certainly did her whole duty. The exercises were held in the church, where several hundreds of all sexes and ages were gathered, and quite in the familiar New England style. Singing in the native tongue was a prominent feature, and many of the voices excellent. Then followed the feast, or *luau* proper, in the yard outside and adjoining a most unpleasant damp-looking cemetery. Scattered about were lots of little booths of banana or *ti* leaves* to serve as cook-shops,

**Ti* is a tree or shrub possessed of very large green leaves.

wherein were baked, (in a hole in the ground) whole pigs and other meats. The chief diet was, of course, the inevitable *poi-poi*, which was devoured in the orthodox manner; and as it was, from time to time, stirred up by the bare hands and arms of the attendants prior to scooping out into little baskets trimmed with flowers, in which it was distributed, and the said attendants, for the most part, not wholly free from a more than suspicion of *scabies*, it did not in the least tempt my appetite.

The population here is mainly native, but there are also fair sprinklings of Japanese, Chinese, Portuguese, and even South-sea Islanders (from the Gilbert Archipelago), the latter possessing a little settlement all to themselves and dwelling in little grass huts about the size of an ordinary dog house. The few whites are mostly officials, sugar-planters and employés. The most notable character is (or was, for it was understood he would soon go to Molokai as a sort of deputy-governor) one Tom Evans, a native of New York, who holds the offices of school inspector, sheriff, and divers other things in the district, in fact enacts the rôle of a Poo-bah; is good-natured, hospitably inclined, and though lacking in the ordinary refinements of civilization, is allied to the royal family by marriage, and boasts a large family of children of various *café au lait* colors.

Honolulu, February 9th.—This happens to be the Celestial New Year. Yesterday, when I walked through the Chinese quarter, the residents were busy hanging out innumerable and gigantic lanterns, and I was struck by the placid, yet excited appearance presented by their flat, wooden (and generally) apathetic faces. If I spoke to one he was delighted, and when a query was propounded he smiled "all over" his face. I never deemed it possible for such a continuous fusillade of fire-crackers to be maintained as was the fact last night; the average Yankee boy is "not in it" (to employ a slang expression) with the adult Mongol, and in consequence I did not sleep for even one hour, since my air-port, being toward the shore, gave me the full benefit of the uproar. As the festival is maintained for three days it is probable I shall see, and hear, more of it before it ends. There are

a great many Celestials here, and all through the Islands, and it is one of the interesting contradictions in the character of this anomalous race, that the most practical, business-like, unimaginative people, who can shave a farthing and make it go farther than any one else in the world, can be so perfectly extravagant and childishly reckless of economy at their *Konohi* (New Year) celebration. If there is any form of expenditure that is so wholly unremunerative, so unutterably silly, or more transitory in the satisfaction afforded, than that of letting off fire-crackers, it has yet to be discovered and named; and yet these people have burned during twenty-four hours, *millions*, and the sound thereof has been continuous. *

To-morrow I am to put on my best and call on Mr. and Mrs. Afong, who are the wealthiest among the Chinese merchant class. Mrs. Afong is of mixed blood, European and Hawaiian, and there are several daughters, young ladies, whom I have met before, and who constitute a strange combination of types yet, withal, possess a certain sort of attraction and are considered very handsome.*

February 14th.—To-day, while out for a walk, I turned into an old, abandoned country-house, once evidently a superb mansion but now fast going to rack and ruin; it possesses spacious grounds, and no little beauties despite the fact the shrubbery has been allowed to run riot, and is over-grown with wild tangles of vines. The mansion itself is of wood, open, with large rooms, and consequently decaying fast. I subsequently learned it was once the summer home of Queen Emma, but now accredited with harboring a ghostly tenant; consequently it is religiously shunned by the natives. As to *who* haunts the house and *why*, I could get no definite information;

*One of the daughters, later, married a Captain in the U. S. Navy; another a paymaster in the same service. The head of the house, after providing his family with a handsome fortune including a spacious mansion and abundance of real estate, sufficient in fact to endow each one, returned to China, taking with him his only son. He then disappeared wholly from view, but whether purposely, is not known. Though apparently very fond of his wife and progeny, custom was stronger than affection, and the separation was deliberate and by mutual agreement.

only that the spectre has been *seen*—by Hawaiians!

To-morrow I visit the leper settlement at Molokai by invitation and as the guest of Doctor Kimball, President of the Hawaiian Board of Health—a trip that will probably consume a week or ten days. I have made as many inquiries as possible into the question of Father Damien's private morals, and though there is a deal of gossip, *pro* and *con*, I am fairly at loss for a definite opinion. I may say, however, that the adverse evidence seems to emanate exclusively from those who may be considered as prejudiced by reason of jealousies and religious affiliations.—Those that can see nothing of good in anyone who is not a follower of their peculiar faith. There can be no doubt, however, as to Father Damien's remarkable devotion and self-sacrifice, and that these entailed not only hard but laborious work. But, whether, with men of a certain temper of mind, such is compatible with the acts charged, it is hard to say, human nature being so much mixed. On the whole, I am inclined to disbelieve the tales in circulation: First, because, while a parish priest he bore an excellent reputation, and it does not appear likely he would, on reaching Molokai, stultify all his previous life: Second, a German friend, many years resident here, a Protestant and Lutheran, knew Father Damien well, even intimately, and repudiates the tales *in toto*: Finally it strikes me that the man who could actually devote himself for so many years to the hardest and most disagreeable of work, even though an enthusiast, if he willed so to do could hardly earn the character his enemies give him.

(Continued.)

ANENT THAT McKINLEY EDITORIAL.

Editor Detroit Medical Journal:

In the September number of your excellent periodical you make reference to the demise of the late President McKinley; and in this editorial there is much that commends itself.

In the experiences of hundreds of medical men (including those of myself covering a period of twenty-seven years), cases crop up where the aid, suggestions, and encouragement of a trustworthy consultant are of value, both to the patient and

the attending physician; and on the other hand, are there not occasions when too many advisors, or even one who is adverse, not alone lessens confidence in the one most competent to judge the case (*viz.*, the regular attendant), but likewise handicaps the chances of the invalid?

I have no use for the silliness exhibited in parading the name of a nurse who, for convenience, happens to be called to assist either at an operation or for the after attendance. It had never occurred to me that a particular nurse was selected owing to special fitness in the McKinley case, since any nurse, trained in the hospitals of either the United States or the Dominion, who possesses head and hands, would do all that was necessary. Indeed, I am old fogey enough to believe that any intelligent person, in the ordinary home, can carry out the instructions of the medical attendant in the matter of "after-treatment."

Perhaps I am "behind the times," but I cannot help thinking there is something farcical in having a nurse, at fifteen or twenty dollars a week, to run the thermometer under the tongue every two or three hours and jot down the result, along with the exact moment the bladder contracts, etc., etc. In ninety per cent. of the cases what does it all amount to; if the temperature is 100°, then 100.2°, then 100.1°, what are you going to do about it?

In the editorial referred to I am sorry that the words occur "left to the rule-of-thumb care of an alien, trained attendant."

Now, I think this is wrong; and really the editor, in justice to himself, ought to apologize for this reflection on the attainments of the individual; and also for the slur upon those whom the word "alien" evidently points to—I mean Canadians. If this nurse was an *alien* by reason of birth, her training was received in the land of her adoption, so that the contemptuous term "rule-of-thumb" insults the authorities of at least one institution for the training of nurses in the land south of the International Boundary. I hope the Detroit Medical Journal will straighten this matter in fairness to its readers.

Yours,

CANADIAN.

Editor Detroit Medical Journal:

DEAR SIR—I read with considerable satisfaction your editorial anent the "Demise of President McKinley." I had followed the case, as best I could, in the newspaper reports, and was awaiting an intelligent history of the symptoms, and the result of the autopsy, as I desired full light as to the cause of death.

I cannot, however, agree with your remarks as to the selection of a nurse. After an experience of over thirty years' practice I am compelled to conclude that the crucial point in many a case is that of the nurse, and if Doctor Mann felt as I have, on many an occasion, he would, particularly, under the circumstances portrayed by you, be justified in selecting the individual (be her nationality what it may), who would implicitly carry out his directions and conserve his professional interests. Indeed I am of the opinion that if there was any chance of the nurse falling short in her duty on account of sympathy for the patient, it would be quite proper for Doctor Mann to do as he did.

By the way, can you throw any light upon the case as regards the result to the supra-renal capsule? The top of the kidney was pierced, and the gangrene extended to about one inch on each side of the bullet's track. Would this not destroy the whole of the capsule, and, in that way, cut off from the economy one-half of the service (whatever it be), that is evidently essential, as we know already, to the continuance of health and life itself?

I find that only one instance is recorded in the medical literature at my command, that in the "Medical and Surgical History of the American War of the Rebellion," of injury to the capsule, so that the profession has but little data to act upon in dealing with any such supposed injury, and I feel that the surgeons in attendance upon this case owe it to the profession at large to supply all the information relating thereto in their hands. Kindly, then, supply all the light that you can command on this almost unique case, and oblige,

Yours sincerely,

R. CARNEY.

Windsor, Ont.,

September 29th, 1901.

[Doctor Carney's inquiry regarding the "alien" nurse is the third of the kind we have received. In the other two there is no doubt as to the intent; in this case we are uncertain whether the writer considered our remarks were supposed to convey the impression that the nurse was not an American, but are compelled to accept this interpretation. What we intended to convey was, that the nurse was imported from another city; she was *alien* only as regards the city of Buffalo. She was imported, not by request of Doctor Mann, but by a Washington physician from his own city, and we can only believe that Doctors Mann, Park, and others, acquiesced in this move simply to avoid any evidence of disagreement among those in attendance. We, perhaps, made unhappy choice of the word "alien" in lieu of some other synonym: but the Century Dictionary among other definitions gives:

Not having rights of citizenship in such place of residence!

This, as explained elsewhere, was the sense in which the term was employed; and the nurse in question, we believe, at the time the editorial was penned, to have been native to Ohio.

Regarding Doctor Carney's second query, we are unable to advance anything of satisfactory nature. The case cited by him as appearing in the "Medical and Surgical History of the War of the Rebellion," appears to be the only one extant—at least so far as we can discover. Now attention is particularly called to it, we can only evince surprise at the paucity of all literature bearing upon the supra-renal capsule. Evidently the medical men in attendance upon President McKinley placed little stress upon this lesion, as it does not appear in the death certificate. We would also like some explanation of how the bullet perforated "both walls of the stomach and the head of the pancreas," and at the same time "shattered the head of the kidney." Like Doctor Carney we await, with some curiosity and eagerness the official and authoritative report.—Ed.]

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

DR. G. ARCHIE STOCKWELL, Editor.

—ISSUED BY—

THE J. F. HARTZ CO.,
Publishers, Booksellers and Importers.

NOTE.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, at 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., OCTOBER, 1901.

ALIEN—AN EXPLANATION.

Some of our Canadian friends are inclined to take umbrage at the employment of the word *alien* as it appeared in the September issue of this journal, and in connection with the nurse in attendance upon the late President. They seem to forget there may be another definition of *alien* aside from "a foreigner" or "citizen of a foreign country." It also signifies:

Pertaining to another: Not native: Estranged: Different in nature and tendency: Not a denizen or native.—Worcesters Unabridged Dictionary.

Unsuitable: Strange: Hostile: Belonging to another person, place or thing.—Encyclopædic Dictionary.

One not having the rights of citizenship in his or her place of residence.—Century Dictionary.

The latter was the sense in which the term was used, the nurse being *alien* to Buffalo — as was necessarily the case when she was imported from Washington, D. C.

Again, the criticism was not aimed at individuals, but at a principle, pernicious *per se*, that was apparently manifested and which, perhaps, is best expressed by the

hackneyed vulgarism as "letting in one's friends." We feel assured if our readers had given the editorial in question more careful perusal—submitted to a second reading,—they would not have thus missed the real point and thereby fallen into an error. This much may be said, however: Had the editor of this Journal even the shadow of reason to suppose the nurse in question was of Canadian extraction, or even adoption, another adjective than *alien* would have been selected, knowing full well that to those Canadians resident near the border, this term (thanks to cheap politics and "yellow" journalism) serves a purpose like the "red rag" flaunted before the bull.

The coupling of the word *alien* with the word *trained*, as occurred in a communication to an Eastern paper, if not a typographical error, was certainly gratuitous; the fact the former was italicised, and a hyphen lacking, evidenced the word "*trained*" was governed by *attendant*.

Finally, the management of the Detroit Medical Journal is wholly free from any prejudice as regards the accident of birth, or foreign origin. Further, the editor, as one of Scottish blood, as a former resident of Ontario, and by reason of business affiliations and ties of consanguinity, marriage and friendship, within the Dominion, is manifestly one of the very last to indulge in invidious criticism or sneers regarding those who have ever owed loyalty to Great Britain.

"Alien," under the circumstances, may not have been a happy selection, but it was nevertheless both correct and pertinent.

HEALTHFULNESS OF THE PHILLIPINES.

We are glad to present our readers with some authoritative information regarding the healthfulness of the new "Eastern Possessions" of the United States. This appears in our Original Columns from the pen of a graduate of the Detroit College of Medicine. It certainly is refreshing to have the truth presented frankly by one who is an unbiased and unprejudiced observer—one who has no axe to grind; and who has no sympathy with the vapid utterances of politicians who are only too ready to sacrifice the truth in the interests of partizanism; and one likewise who does not look upon the world from the standpoint of the disgruntled holiday soldier who expected service in the Phillipine Archipelago to constitute one prolonged pic-nic. The calling of a soldier is far from being "all skittles and beer," as many a young recruit has discovered; and in his disappointment he is apt to see only the one side, that the worst and most objectionable. Doctor Henson's views tally fully with facts that are expressed by all honest travellers and observers.

BOVINE VS. HUMAN TUBERCULOSIS.

I am of the opinion that tubercular conditions in men and animals are identical after they are started. One fact that strengthens my belief that human bacillary tuberculosis is all derived from the bovine species is that where these animals do not exist, pulmonary consumption is unknown. The Kirghis, on the steppes of Siberia, who possess no cows, have domesticated the horse, use its milk and flesh for food, and skin for wearing apparel; and, remarkably, in no case has pulmonary tuberculosis ever been known in this race. The Innuit has no cows, neither has he pulmonary phthisis, and I think it can be laid down as a fact that where the dairy cow is unknown pulmonary consumption does not prevail. Let us treat this disease, especially among the cows, as leprosy was treated of old, and then we shall be saved from the painful necessity of treating the human race in like manner, for I am convinced that if we stamp out tuberculosis in the bovine

race, a few generations will eradicate it from the human family.—BRUSH (*Associated Press Dispatches*.)

The teacher of bovine pathology in the American Veterinary College of New York, would appear to be in arrears in his specialty. There is, however, as has repeatedly been proved, a material difference between phthisis pulmonalis and tuberculosis in the human subject.

SANITARIUM FOR PULMONARY MALADIES

For some years attempts have been to secure Federal legislation that will permit of a Government Sanitarium, open to all classes, to be built in some locality that is presumed to be most favorable (in point of climate) to the treatment of those suffering from pulmonary maladies, particularly phthisis.

Some years since, at the convocation of the American Medical Association, in Atlanta, Georgia, a special committee was appointed to further this purpose, and the concensus of opinion decided that New Mexico offered the greatest meteorological and climatic advantages. Like many another design, this failed, save that a hospital was built at Fort Bayard for the treatment of tubercular soldiers. However, what Government failed to do, has been taken up by the Sisters of Mercy, and carried to successful conclusion, in the form of a hospital located at Silver City. This institution is fully equipped; has an altitude of 6,000 feet above the sea level; and boasts a most equitable dry climate, with a minimum of rain fall.

We shall watch the future history of this enterprise with interest.

ARMY MEDICAL SERVICE.

The fact the three Boards, created during the past winter, for the examination of candidates for the Medical Corps of the United States Army, have concluded their labors without being able to more than one-third fill existing vacancies, calls attention to a

serious condition of affairs existing in this branch of the Military Service.

Formerly, a medical officer could look forward to attaining the rank of colonel, or lieutenant-colonel (certainly that of major) after about eighteen years of service; but under the new "Army Reorganization Bill" no candidate can, under ordinary military exigencies, hope to attain a higher rank than that of captain, even after *twenty-seven years of service*; and the emoluments of a captain's rank are not adequate to meet the requirements, social and professional, after retirement.

More aggravating than all is the fact that, no parallel restrictions are imposed upon any other staff department—which would make it appear there was a wilful intent to belittle the medical branch of the service; it certainly constitutes a practical, official degradation of the medical body, which is pre-eminently the scientific corps of the army.

It is hoped that Congress will take cognizance of this condition of affairs during its next session, and offer a remedy therefor. Certainly, with the disadvantages that now obtain, there is no encouragement to any capable young medical man to enter the United States Army.

CONTROL OF VENEREAL.

Greater New York is now in the throes of its first systematic attempt to collect statistics of venereal diseases,—a class of affections which have a most important bearing on the public health.

The work is under the supervision of a committee selected by the Society of the County of New York, Doctor P. A. Morrow, the well-known syphylographer, being chairman thereof. The aim is, to seek information from every practitioner, every hospital, and every dispensary, as to the number of cases of gonorrhœa and syphilis treated, and it is especially desired to gain the fullest possible information relative to the prevalence of these diseas-

es in the married state and in children.

This is a most important subject, and we trust the investigation will result in the institution of some practical method to be terrible ravages of these maladies.

FAME AND MEDICINE.*

Not a single physician has a place in the Hall of Fame of the New York University. When the trustees selected names to place in the muster roll of men entitled to a niche in the American Pantheon, not one member of the medical profession was considered worthy of a place. Thus does mankind delight to honor those who, of all men, do most for its good! Another striking illustration of the limited character of medical fame is afforded by "a list of the most prominent men and women who have lived in the nineteenth century," lately published by *Truth*. Though the word "prominent" is used in the widest possible sense, being applied to such very minor constellations as "Peter Pindar" and Abraham Hayward, it appears not to be sufficiently elastic to include more than two or three members of the medical profession. The list includes numerous poetasters, fiddlers and buffoons, singing men and singing women; but we do not find in it the names of Hunter, Cooper, Lister, Simpson, Claude Bernard, or Helmholtz; the moral of which is that those who, like the American gentleman in "Martin Chuzzlewit," "aspire for fame," will do well not to choose medicine as a sphere for the exercise of their genius. From this point of view it is better to be a mountebank or a dancer than a doctor.

CARBOLIC ACID.

This agent has been officially declared a poison in Great Britain, and its purchase hedged about with the same formalities as other deadly drugs; special provision has, however, been made to facilitate its sale for agricultural purposes.

*Excerpted from the *British Medical Journal*.

SODIUM CACODYLATE.

Lately has been recommended in the management of a number of maladies, notably chorea, phthisis, carcinoma and cancers generally (both operable and inoperable), etc., sodium cacodylate, which is neither more or less than a sodium oxydation-product of arsenic di-methylate. The chief value of this drug appears to lie in a general roborant action, such as commonly obtains to all the arsenical preparations, along with a slight alternative effect. It contains the equivalent of 61.8 arsenous acid.

Commonly administered by enema, or hypodermatically, it may also be given by the mouth in pill form; but inasmuch as this salt is very delequent it requires to be made up with colophony (or benzoin resin), of which as much must be used as of the salt itself, and the moistening must be with as little alcohol as possible.

Inasmuch as the salt frequently contains uncombined cacodylic acid, unless it is carefully scrutinized as to purity before prescribing, it is best administered by the rectum.

Payne, in *The Lancet* (London), eulogizes this drug as a "valuable palitative agent in cancer;" Lannois, *Bulletin Médical*, condemns in chorea, for which malady it has been greatly lauded; Gautier has employed in tuberculosis, phthisis pulmonalis, diabetes mellitus, exophthalmic goitre, pernicious anaemia, malaria and malignant disease. Nevertheless, neither the *rationale* of its employment or the results obtained warrant the praise that has been so lavishly bestowed upon this agent. It, of course, may be employed as a substitute to, or alternant of, other arsenicals, especially when the stomach has become intolerant of the latter. Beyond this nothing can be said.

The dose by the mouth is one-half grain three or four times daily, which

quickly develops a garlicky, or onion-like odor of the breath, frequently manifested as well in other excretions; in enema the same amount in solution (sixty minims to one-half ounce of water) has been employed. Subcutaneously one-third grain dissolved in ten minims of fluid, is the usual proportion. These doses may be considerably increased as tolerance is established.

EDITORIAL NOTES.

Nasal Catarrh.—

An *Exchange* suggests insufflation, into the post-nasal cavity, of finely powdered animal charcoal. It is said to have proved very effective in some few instances, hence may be worthy of more extended trial. In any event, the remedy is so simple any one can profit by the suggestion; but it will be well to make sure of the quality, as some bone-blacks, the cheap varieties especially, are highly irritant in their character.

A Distinction, but —

The American young woman who has been charged in London with forgeries amounting to one-half million is claimed to be insane. "If the amount had been only \$50.00," remarks the Detroit *Free Press*, pertinently, "nobody would have considered her mental condition worth discussing."

Priapism.—

In young children this condition is commonly due to vesical or preputial irritation. If the former, it usually denotes the presence of a calculus; if the latter, it calls for either circumcision or retraction of the prepuce and thorough cleansing of the coronal sulcus.

Twin Marriages and Multiple Births.—

A pair of twin sisters of West Virginia were married to twin brothers. Recently they gave birth to triplets within an hour.

Diabetes and Uranium Nitrate.—

Latterly the uranium salts have cropped up again as remedies in diabetes, the nitrate, seemingly, being the favorite. Unfortunately most of the claims made are derived from experiments upon the lower forms of life and are, consequently, practically worthless. It may be well, however, for our readers to remember, that this agent was, a few years back, employed somewhat extensively in the London Hospital, by Doctors West, Tyson and Sandby, in doses of from ten to twenty grains. The results, on the whole, were rather favorable than otherwise, and no untoward phenomena developed except diarrhoea. All admit the drug is in no sense specific, but the evidence appeared almost conclusive that uranium nitrate constituted a valuable adjunctive treatment in many instances.

Further knowledge is desirable.

The "Lizard Story."—

The venerable "yarn" of some form of reptile living in the stomach of a human being and causing great discomfort is again upon its rounds. This time it is related that an unfortunate young woman, residing in the Southwest, after an illness of two years "with stomach trouble that puzzled all the doctors" vomited a dead lizard and, of course, quickly recovered.

The vitality manifested by this and similar tales evidences that the general education of the masses, and even those connected with the lay press, is very defective. More, that editors-in-chief, who are supposed to have a fair general education, miss the very ordinary fact that air breathing creatures cannot live without some proportion of oxygen. As the *Drug-gist Circular* truly remarked on an occasion when it traced one of these fictions to its fountain head, "Such claims invariably varnish into nothingness, or proves at the worst to be derived only from the appearance of an ordinary anaërobic worm."

"What is the Decomposition?"—

"The following prescription," says *The Scalpel* (London), "was made up from a veterinary work, and corked in a bottle:"

Glycerin, 2 ounces.

Potassium permanganate, 4 drachms.

Water, 3 ounces.

The bottle suddenly developed great heat and exploded with violence, but fortunately did no personal injury, though the damage to property was considerable.

The chemical action induced by the combination of glycerin and potassium permanganate resulted in the rapid evolution of the oxygen. This is by no means an uncommon veterinary prescription, but usually the caution is added to allow to stand in an open vessel until cool.

Guaiacol, Dangers of.—

This medicament had been very generally heralded as "harmless" under any and all conditions, and with this belief has been widely prescribed for the most ordinary of everyday affections, as well as those of more serious character. The *Medical Press and Circular*, however, calls attention to the fact the drug is decidedly poisonous: Also that, on one occasion, an application of two minimis to the cavity of a necrosed tooth (plugging with cotton plegget and sealing with gum mastic), within twenty minutes gave evidences of the toxic activity of the drug.

Mosquitoes and Elephantiasis.—

The second malarial expedition of the Liverpool School of Tropical Medicine has reported from Bonny, in Nigeria, (West Coast of Africa,) that the parasite which causes elephantiasis has been found in the proboscis of the mosquito. The same discovery has been simultaneously made in England by Doctor Low, in mosquitoes brought from Australia; like-wise by Surgeon-Captain James in India.

Just So!—

Paris is the paradise of those who frequent the border land between science and quackery.—*Literary Digest*.

Medical Legislation in New England.—

A new section has been proposed for incorporation in the medical law of Massachusetts, providing that:

Whoever not being registered shall advertise or hold himself out to the public as a healer of disease, or able to abolish disease or the symptoms of disease, or as competent to do surgery, or shall in any way treat or prescribe for the sick or injured for gain, shall be punished by a fine of not less than one hundred dollars, or more than five hundred dollars, for each offense, or by imprisonment in jail for three months, or both.

Good! Something of the same kind would suit some of the western states, Michigan included.

Sodium Tellurate.—

This agent, which has latterly been suggested as an anti-sudorific, effective in the night-sweats of phthisis, etc., seems to readily fulfill all that is claimed for it in this direction. The only objectionable feature of the drug, however, is that it has a persistent, nasty taste, and gives a strong garlicy odor to the breath, which latter obtains for something like twelve to eighteen hours after ingestion.

Cocaine vs. Castration.—

A writer in the *Medical Record*, commenting upon castration for enlarged prostate, says he injected cocaine into the testicles twice a week, for two months, in two cases of this kind. There was absorption, immediate relief from the distressing symptoms, and recovery. In both cases, while the power of copulation remained intact, there was absolute cessation of the production of spermatozoa.

Vratch.—

This well known Russian Journal was recently discontinued by the will of its editor; it has, however, been re-established by special permission of the Tsar under the title of *Russki Vratch* (Russian Physician), and is edited by Podwiatotski and Wladislawlew.

Grindelia Squarrosa.—

It is said that hypertrophy of the spleen, ringing noises in the ears, and soreness of the eyes and muscular tissues as derived from colds, are all very readily relieved by this remedy. We would be pleased to obtain more evidence pertinent to these statements.

Chlorosis.—

Recently the old treatment by rectal injections of defibrinated bovine blood has been revived: Five ounces are employed as a clyster twice daily, for seven days every alternate week until the desired result is secured.

Nocturnal Pollutions.—

Excellent results are obtained by the treatment of severe cases of involuntary emissions by thirty minims fluid extract of ergot combined with fifteen grains of sodium bromide, administered at bedtime.

Paryses of Convalescence.—

When the glycero-phosphates or ferromanganic preparations are of no utility, the addition of digitalis will frequently render them active. When all else is futile, try strychnine arseniate.

Ringworm.”—

Wash clean with hard green soap and dry thoroughly. Then apply collodion in which pyrogallic acid has been dissolved in the proportion of fifteen grains to the ounce.

Chorea.—

Doctor Taylor, of Philadelphia, asserts this malady is exceedingly rare among blacks. He has encountered but three cases in the negro race.

To Abort Furuncles.—

Calcium sulphide in doses of 1-100 of a grain will usually answer this purpose; increased to 1-2 grain, pus formation is inhibited with almost certainty.

Items and News.

Staff Nurse: Old Style.—

The greater masters of the commonplace, Rembrandt and good Sir Walter—only these Could paint her all to you: Experienced ease And antique liveliness and ponderous grace; The sweet old roses of her sunken face; The broad Scot's tongue that flatters, scolds, defies;

The depth and malice of her sly gray eyes; The thick Scot's wit that tells you like a mace. These thirty years has she been nursing here, Some of them under Syme, her hero still. Much is she worth, and even more is made of her.

Patients and students hold her very dear; The doctors love her, tease her, use her skill: They say, "The Chief" himself is half afraid of her.

—*The Practitioner.*

Appendicitis Statistics.—

The largest number, treated surgically, reported by any one person was four hundred, which the author stated was only about half of the cases seen. This would make a total of eight hundred cases of appendicitis under the observation of one individual; while as an antithesis several well-informed physicians, positively declared that, so far as they had been able to judge, they have never seen a case of appendicitis in experiences extending over periods of from twenty to forty years; others still, of undoubted reputation, maintain that in an active practice extending over a similar period, they have met with the average proportion of cases, all of which were treated medicinally, and all of which recovered.

One physician naively remarked, "I am not sure of having had any cases of appendicitis, because none have died and none have been operated upon."—THOMPSON (*Medical Visitor.*)

Castor Oil, Taste of.—

It is not the taste but the odor of castor oil that is offensive. If the nostrils are firmly held and the oil deposited well back in the pharynx there will be no disagreeable "taste," more especially if some lemon juice be swallowed before the nostrils are freed.—*Exchange.*

[In practice this probably works all right, but we have some misgivings as to the theory.—ED.]

Gestative and Incubative Periods.—

In the horse and ass it is eleven months; in the buffalo and camel, twelve; in the elephant, two years; in lions and sheep, five months; in the cow, nine, reindeer, eight, monkey, seven, bear, six, swine four months respectively; in the dog, nine, cat, eight, rabbits and guinea pigs, four weeks each; in the wolf, ninety to ninety-five days.

The goose incubates thirty days; swan, forty-two; hen and grouse, twenty-one; ducks, pea-fowl and turkeys, twenty-eight; canaries and pigeons, fourteen; parrots, forty days.—*The Field* (London.)

Theine in Tea.—

In the various kinds of Chinese tea, sent to Berlin by the German Consul at Shanghai, all hermetically sealed, the yield of theine was remarkably high.

The percentages were: Souchong, 2.83; Flower Pekoe, 4.36; Scented Tea, 3.08; Pouchong, 3.44; Congou, 3.83; Oolong, 3.66 per cent. A Brazilian tea, "Cha Morumbi," contained 3.11 per cent. of alkaloid.—*Chemist and Druggist* (London.)

The Value of Therapeutics.—

If the study of pathology means the neglect of therapeutics, so much the worse for pathology, and so much the worse for schools which make pathology their leading feature. The man whose interest in his patient ends when he finds out exactly what ails him, ought to be in some other line of work than the practice of medicine.—*Medical Sentinel.*

Ineffective.—

A sanitary bible, bound in celluloid, which can be washed, has been suggested for court use.—*Exchange.*

[But who will ever wash it?—ED.]

The Progress of Medicine.—

Hepatic Doctors now are seen no more, The hunt for bile has long been given o'er; Whoever would a reputation make Deserts the bile—the bugs to overtake.

—*Exchange.*

Serum Therapy.—

The beauty of, and glory and strength of serum-therapy has not, as yet, been fully acknowledged.—*Medical Visitor.*

Book Reviews.

Therapeutics, its Principles and Practice. By Horatio C. Wood, M. D., L.L.D. Eleventh Edition. Cloth, 8 vo.; pp. 850. Price, \$5.00. J. B. Lippincott Company, Philadelphia and London.

The very number of the revision is conclusive evidence of the estimation in which this work is held by the medical profession. It is one of the few volumes of its class that is neither a reprint of a foreign work, or a "hash" wherein credits are lost sight of and valuable material ignored by reason of the incapacity of the editor.

This work was, last year, just a quarter of a century old, and the eleventh edition might, very properly, claim higher rank than a mere revision, since the attempt is made to give a new and modern view to the whole subject of therapeutics. Certain discussions that appeared in the early editions have disappeared owing, as the author says, to the fact "they have lost value at this time because of the general uniformity of professional opinion that has been reached with regard to their conclusions." The language has been very carefully considered with a view to obtaining the utmost conciseness compatible with clearness; and another feature, constituting a great improvement, is the removal of references from the body of the text, and placing in nonpareil type at the conclusion of the chapters to which they pertain.

The physiological action of drugs is the chief basis of Doctor Wood's therapeutical teachings; in fact his work is almost the only one—certainly the only one from American sources—that follows this rule with any degree of accuracy and pertinency. While we must disagree with Doctor Wood as to the value of deductions drawn from experiments upon lower animals—holding in the main with Niemeyer that such "have been, as yet, of no direct service to our means of treating disease, and a continuance of such experimentation gives no prospects of such utility"—it must be admitted that these may sometimes offer pertinent clews whereby to study the action of drugs in the living economy, or so to speak, afford a point of departure whence more critical studies can begin. Unless the physiological idiosyncrasies of the animal as compared with man can be formulated, the conclusions drawn are apt to prove misleading, at least uncertain, to the great majority of practitioners; but to the remaining few, those accustomed to radically scrutinize all evidence, and draw deductions in consonance with the revelations afforded, they are possessed of material value. At the same time must be recalled, the action of any drug upon the healthy individual, animal or human, is necessarily very different from that manifested when the remedy is confronted by a pathological condition; also when the latter obtains in two separate individuals, or in the same individual on different occasions. What then must be the differences—certainly very wide—as between man in a diseased state, and the lower animal subjected to conditions of environment entirely foreign to its nature. But Doctor Wood does not claim for his work, infallibility

either as to the characteristics of the remedies treated of, or their manifestations; he presupposes (which alas is too often lacking) critical and analytical judgment on the part of his readers, and that the propositions made will not be accepted as hard and fast dicta, but, rather, serve as finger-boards and guide posts. Thus the work appeals chiefly to the more careful and scholarly practitioner, one accustomed to think, to reason upon evidence, and draw deductions in accordance therewith.

New Instruments and Devices.



We present herewith an illustration of a new fountain cuspidor, for Dentists and Physicians, which can be attached either to a stand or to an operating chair. The claim is made for it that it is the only cuspidor in the market that carries off vomited matters.

SOFT RUBBER CONICAL ELBOW-CATHETER FOR AUTO-CATHERIZATION.

This is the "catheter of De Mercier," that has heretofore been made only of semi-stiff waxed material, hence the advantages of soft rubber will be apparent at a glance.

The particular value of this instrument is its applicability for self catheterization on the part of old men suffering from enlarged prostate. The elbow end of the instrument is conical in shape, and thus searches its way through the folds of the urethra and over the large and obstructing veru montanum, a procedure which is generally difficult by means of ordinary catheters even in the hands of experts; it is also equally of utility where stricture exists.

The curve is so designed that it readily slides over any intraveneing obstruction, and that too without causing pain or inducing haemorrhage.

This is the best and safest instrument to prescribe for patients whose condition is such that it is desirable they should themselves perform the operation of catheterization.

Therapeutic Brevities.

Water as Medicine.—If physicians will only realize that water is a better antipyretic than aconite or phenacetin, a better analgesic than opium, a better sedative than the bromides, a better cathartic than calomel, a better heart tonic than digitalis, a better diuretic than buchu or potassium citrate, they will certainly use it more extensively. For these purposes water is the better (but not necessarily the more active) remedy, and moreover harmless providing the same intelligence and common sense are employed in its administration as is supposed to be exercised in the use of drugs. Of course something should be known of the *rationale* of its employment, either externally or internally.

The hot compress and the hot douche have an established place in therapy; but there is a popular prejudice against local applications of cold which it is hard to overcome. The great value of the latter, in febrile conditions (including typhoid, pneumonia, small-pox, scarlatina, and all diseases in which the temperature runs high) renders it important to combat this prejudice. The cold bath, the cold pack, and cold sponging, owe their efficacy not so much to abstraction of heat and reduction of temperature, as to the tonic effect upon the whole system induced by the temporary shock to the sympathetic nerves, and the reaction which follows upon vigorous friction, stimulating stronger action of the heart, raising of blood-pressure, and increasing the activity of the skin and kidneys, thereby promoting the elimination of toxins: Nor is cold water much less valuable in chronic diseases, where its tonic effects are of decided benefit and without secondary relaxation; and here, too, hot water, or the alternation of heat and cold, finds many uses, helping to improve vaso-motor tonus and to stimulate nutrition.

Taken internally, water is a remedy of the utmost value in febrile conditions. The patient should not only be allowed, but encouraged, to partake of it freely, since it fills the vessels, dilutes the toxins in the blood, and stimulates activity of the kidneys, skin and bowels, thereby carrying off the bye-products of morbid

metabolism.—In those who indulge too freely in rich and proteid foods and take insufficient exercise, there is a tendency of the blood to become charged with the products of defective metabolism; a condition that, if allowed to continue, tends to produce permanent arterial changes and likewise predisposes to many serious diseases. Here water is the best remedy, and with a proper adjustment of the diet and habits may be the only one required.—*Medical Standard.*

Epididymitis, Chloroform In.—Great benefit is obtained in treating cases of epididymitis, both specific and non-specific, by means of chloroform locally applied. Lay cotton wool, saturated with chloroform and spirit, at the bottom of a large glass vessel, into which put the genitals, and pack round with dry cotton wool, the buttocks and thighs forming a cover; this application being continued for from fifteen to twenty-five minutes, and repeated two or three times a day.

Pathologically, the condition is one of venous congestion of the epididymis and the cord through retention of semen. Epididymitis is very likely to occur when gonorrhœa has been contracted in excessive venery.

Thirty-six years ago a case of periodical "heat" in the human subject was treated in this way: The man used to suffer periodically from a form of orchitis, during which the testes felt hot and swollen, and the plexus pampiniformis was full and turgescent like a varicocele. He was ordered the local application of chloroform for nearly thirty-five minutes, after which the pain of the severe attack completely ceased and the swelling considerably decreased. This treatment lasted three days, during which time he was able to walk about, the cotton wool which had been used for the chloroform being put into the suspensory bandage and the testes covered with it. After that both the swelling and sensibility disappeared.

Another case was only epididymitis caused by continuous pressure of a rudder handle on the hypogastrium, in which similar treatment proved entirely successful.

Again a class of case that is usually very difficult to treat is, gonorrhœal orchitis, but that proves fairly tractable

when managed with the help of chloroform. Here one of the first signs of improvement is frequently the re-establishment of an old discharge, which is cured simultaneously with the epididymitis.—*CLEMENS (Allegemeine Medicinische Central Zeitung.)*

[We can fully endorse the foregoing, and a mixture of one ounce of commercial chloroform in two pints of alcohol, will be found most efficient.—Ed.]

Hypertrichosis.—Pastes are better than razors for the palliative treatment of hypertrichosis, and accordingly the "Rusma" employed in Oriental harems to destroy pubic and axillary hair is to be recommended. This paste is made in the proportions of a half-a-grain of yellow sulphide of arsenic to eight grains of unslaked lime, and sufficiently boiled. It is put on by means of a spatula, and left ten minutes, till dried, then scraped off with a dull knife, the skin washed, dried, and powdered. This is probably the oldest and best known depilatory, inasmuch as it has been used for ages by the Jews for periodical removal of the stubble of the beard.

Another depilatory preparation of value is calcium sulphhydrate (CaH_2S^2), made by passing sulphuretted hydrogen gas through a thick cream of slaked lime until the latter will absorb no more. It is antiseptic and alkaline, therefore an efficient soap and bleaching agent. It frequently destroys the hairs some distance down into the mouth of the follicles. It incites no more folliculitis than the ordinary use of the razor. A dusting powder of zinc stearate may be advantageously used after the depilatory has been washed off in abundance of water and the skin well dried.

For a patient suffering with hypertrichosis the use of these pastes once every one or two weeks will be safe, economical, and efficient. They also have a wide application in the treatment of ringworm.—*BRAYTON (Indiana Medical Journal.)*

Tonsils, Enlarged.—Five or ten minims solution ergotin, injected into a hypertrophied tonsil, does away with the necessity of employing the tonsillotome.—*CASTLE.*

Passiflora Incarnata.—This is a mild and harmless nervine and soporific, and a valuable adjunct in the treatment of nervous affections attended (or caused) by congestion of the brain and spinal cord. It acts very much like belladonna, but does not affect vision or the secretions of mouth or throat. In spasms, and in neuralgia, it is a mild and efficient remedy. In full doses it relaxes the muscles in tetanus, both in men and in horses—in horses it should be pushed freely. It does not derange the stomach or depress the heart, hence is not attended with the danger accruing to other nervines. In infantile convulsions it works like a charm. In the peculiar hyperæsthetic states that arise from dentition in infants it acts with certainty and promptitude. In nervous and sick headaches, in neuralgia of the fifth pair, in the insomnias of typhoid and typhus, and in the excited state peculiar to professional and literary men and dependent upon overwork, it is most satisfactory. It should take the place of opium in a majority of cases where the latter is supplied; and in almost all cases, in children, I think it can take the place entirely of chloral and the bromides.

In the hysteria of women, in dysmenorrhœa, and in neuralgia of the uterus and ovaries, this is a most desirable remedy and may be given along with wild cherry and black haw. Many physicians fail to realize the good effects of this charming remedy, owing to the use of a feeble tincture. It should be employed in concentrated form, in doses up to one or two ounces if necessary, and repeated until it acts.—*Goss.*

[See page 89, June issue of this Journal for instructions how to make an effective tincture.—Ed.]

Helianthus in Malaria.—The leaves of the sun-flower (*Helianthus annum*) enjoy a high anti-malarial repute among the vulgar in Russia, Persia, Turkey, and in the Caucasus. The peasantry and mountaineers claim for it wonderful medicinal virtues, both topically applied and internally administered.—In the former daily packings are instituted with the leaves, duly macerated with milk, and a sudorific effect results; in the latter a spirituous infusion is employed in doses of a small

vine-glassful three or four times daily. The common belief that the plant is an infallible remedy in malaria, is in some measure corroborated by Doctor Filatoff, of Saransk, who asserts "it is an excellent and cheap substitute for quinine in intermittent and remittent," a statement concurred in by Kazatchkoff; both employed a tincture of fresh flowers and stems, obtained by macerating in five parts of alcohol, the dose being ten to twenty-five minims. There is neither unpleasant odor or taste,—children readily take it—and no development of untoward phenomena.—MAMINOFF (*Meditzinskoie Obozrenie*).

Polypus, Uterine.—A woman of thirty suffered from uterine haemorrhage due to polypus. Her stomach was so deranged from hydrastis and digitalis that food could not be tolerated; dropsy supervened, the legs being swollen to twice their normal size, and the abdominal cavity harbored several litres of fluid; the heart was so weak that it would respond only to the strongest stimulants.

An operation was deemed unsafe, so resort was had to small and repeated doses of arbor vitæ (*Thuja occidentalis*). In a few days the hemorrhage ceased; the accumulations of fluid were excreted by the kidney; and in three weeks she was able to leave her bed. The remedy was continued for several months, as the menstrual flow continued to be considerable. After four months a polypus was extruded, with a pedicle several centimetres long, which was easily snipped off, but which would have come away of itself if left alone.—*Therapeutische Monatsblätter*.

Abortion.—When inevitable, plug the vagina with strips of gauze or some clean, soft material, and wait six or eight hours; often the ovum will be found in the vagina on removing the gauze, if not, plug again and wait.

If any part of the ovum or decidua remains in the uterus, clean it out at once with the finger or curette, not hesitating to give an anæsthetic if any difficulty is met with.

If there is a rise in pulse-rate and temperature, and the vaginal secretion is foul, give an anæsthetic, dilate the cervix, empty the uterus, scrape it clean, no matter what

stage the process of abortion has reached.—In other words, use artificial dilatation, followed by emptying and cleaning out the uterus in threatened incomplete and complete abortion alike, whenever the uterine cavity becomes the source of septic intoxication.—*Indian Lancet*.

Stomach, Hæmorrhagic Erosions of.—Hæmorrhagic erosions of the mucous membrane are merely a complication of chronic gastritis in its early stages, or a special variety which may be called chronic exfoliative gastritis. The best measure to relieve the pain and the lesion is lavage with solution 0.5 per cent. silver nitrate after rinsing out the fasting stomach with tepid water, twice in succession, carefully measuring the siphoned fluid to insure that all has been removed. The solution of silver nitrate may be allowed to remain in the stomach for a full minute before removal. Repeat this lavage twice; the stomach then to be rinsed with a tepid salt solution. This treatment may be repeated every other day and continued for ten to twelve days, or until all scraps of mucosa have disappeared from the stomach contents. The diet is equally important.—PARISER.

Dysentery, Sulphur in.—Dysentery may, usually, be rapidly cured by administration of sublimed sulphur and Dover's powder. Give the sulphur in twenty grain doses, every four hours. Under this treatment, in chronic cases, marked improvement takes place in one or two days.—RICHMOND (*The Lancet*).

[We can endorse this treatment, but would suggest the Dover's be not made by the U. S. P. method, but by the B. P., which still retains the potassium sulphate in place of the milk sugar enjoined by the former. Or better yet, substitute potassium nitrate as in the original Dover's powder. Milk sugar is apt to prove irritating in dysentery cases.—Ed.]

Cerumen, Removal of.—Pure sulphuric ether poured into the external auditory canal will prove to be the best solvent for ear-wax. It acts in a few seconds and loosens the plug so that it can be removed with gentle syringing.—MIERHOF.

Drowned, Resuscitation of.—In drowning no water enters the lungs! Experiments have proved the largest amount of fluid ever entering the lungs is only about three drachms, and this, largely mucus.

Heat, profound and persistent, coupled with artificial respiration and stimulation, have restored patients submerged for one hour. If the time wasted in attempts to get imaginary water out of the lungs is devoted to energetically applying heat,—pouring very warm water on the skin from a height for a long time, and keeping the patient immersed in a hot bath,—the chances are greatly in favor of recovery. Artificial respiration and stimulation may be used after the heat, but this agent, is all important.—WHITFORD (*Chicago Medical Journal*.)

Migraine.—Grasp the skin at the back of the neck between the finger and thumb of the left hand, transfix with a scalpel and pass a needle or probe, with an eye, through the wound; through this wound draw a piece of tape, one-half inch wide, four or five inches on either side, tied so that it cannot be displaced. The patient is ordered to move the tape from side to side each day.

This seton may be allowed to remain continuously for three months; if the migraine reappears at the end of that time, another seton should be introduced. Anæsthesia with nitrous oxide for one-half minute, is sufficient for the operation.

By this method several cases have been successfully cured.—WHITEHEAD (*British Medical Journal*.)

Mammary Affections.—Sulphur is one of the best remedies for mammary neoplasms as well as the commoner forms of diseases of the glands. Universally, in mammary diseases, the patient will have been annoyed by the heat and burning in the parts; either the skin or the nipples will burn "like fire," or the parts will be hot and tender, or the itching or eruptions will burn. Too much importance cannot be placed upon these symptoms. Here (and especially if there has been the history of former skin disease, suppressed eruption, or suppression of an infective leucorrhœa) the exhibition of sulphur will often bring about a cure.—BAILEY (*Medical Century*.)

Black Willow.—This is very useful as a sedative to the generative system. In acute gonorrhœa with much erotic trouble, and in chordee with great irritation, give in doses of thirty to sixty drops at bedtime, to be repeated at midnight or towards morning if needed. In these cases nothing has given more satisfaction; it robs night of its terrors, and leaves no unpleasant consequences. Where there is excessive venereal desire amounting to satyriasis, it controls in a very satisfactory manner; it can be given when the bromides would be very inappropriate, and there is no reflex effect on the brain or nervous system.—FEARN (*Chicago Medical Times*.)

Endometritis, Purulent.—Prepare an emulsion according to the following formula:

Iodoform	120 grains
Starch	60 grains
Glycerin	20 drachms
Water	12 drachms
Creolin	18 grains

Mix iodoform and starch, then add the other ingredients with the aid of heat (about 270 Fahr.)

For injection the ordinary long-nozzled intra-uterine syringe may be employed though a small glass instrument with a soft rubber nozzle, some two inches in length and of sufficient firmness, answers admirably. The small amount of creolin effectually disguises the iodoform odor.—ROBERTS (*Philadelphia Medical Journal*.)

Rhachitis.—Systematic exercise, consisting of active and passive gymnastic movements, should be practiced to stimulate general nutrition and assist the circulation about the joints. Massage is very useful in infants who are too young for these exercises; also friction with a hair glove steeped in the following liniment:

Turpentine	300 grains
Camphorated oil	750 grains
Lavender spirits, comp.	150 grains
Eau de cologne.....	300 grains

—Province *Médicale*.

Gastric Ulcers.—Calcium chloride is recommended as of great service, especially in cases accompanied by severe pain.—FALKNER.

Intestinal Obstruction.—Large doses of atropine have given good results in the hands of Batsch, Seber, Festner, Schulmann, Marcinovski, Holz, Ostermaier, etc. The underlying idea is to overcome the spasmodic condition of the intestinal musculature, and thus relieve the obstruction. The doses have been pushed as high as one-twelfth grain hypodermatically, repeated, if necessary. In successful cases, a movement of the bowels followed within a few hours. No symptoms of intoxication have been observed, notwithstanding the excessively large doses.—*Northwestern Lancet.*

Urticaria.—Prescribe sulphate of sodium, internally, every three hours, in doses of from sixty to seventy-five grains for adults and less for children. At the same time order local application of the following:

Calamine, prepared..	90 grains
Zinc oxide.....	90 grains
Carbolic acid.....	30 grains
Lime water.....	950 grains
Rose water.....	1,750 grains

For children the quantity of carbolic acid should be regulated by age.

Urticaria is said to be cured in twenty-four hours by this treatment.—*L'Arte Medica.*

Cancer, Treatment of.—Cancer of the breast has been successfully treated, by Launois with injections of hydro-chlorosulphate of quinine.

Tuffier reports the case of a lady who had suffered for eighteen months with cancer of the breast with extensive ulceration, in whom subcutaneous injections of cacodylate of soda produced considerable improvement of the ulcer.

Quenu has tried all the preparations recommended, including quinine and cacodylate of soda, without any appreciable result.—*Medical Adviser.*

Therapeutics.—A rational application of therapeutics can only be carried out successfully by studying the drug action and applying it to the pathological process. A closer study of disease-expression is called for, and a separation of the nosological diagnosis and therapeutic diagnosis is needed in many cases.—*Charlotte Medical Journal.*

Chloroform Water.—Add two drachms of chloroform, in a graduate, to enough alcohol to make one ounce, and mix well. Empty this into a five pint bottle, fill with water, and shake thoroughly.

Chloroform water almost covers up the bitterness of nux vomica.—BLOYER.

[Chloroform water is valuable also in a number of intestinal maladies, particularly indigestion and conditions due to or threatening fermentative processes. It is an excellent, palatable and safe antiseptic, and may be given in doses from one-half drachm to two ounces.—Ed.]

Mania, Veratrum in.—One who has not employed veratrum viride in acute mania has missed the best agent available for the relief of these distressing cases. It is most satisfactory to see the sufferer, under this remedy, pass from absolute sleeplessness into a state of quiet rest. The best preparation only should be employed, and that is Norwood's tincture.—*American Medical Journal.*

Fomentations.—A hot fomentation that will not require to be changed frequently can be made by dipping a flat section of sponge in hot water. Apply to the part, and upon sponge place a hot-water bag. If desired, the water may be medicated in which the sponge is dipped.—*Medical Dial.*

Exophthalmic Goitre.—Tincture of veratrum relieved a bad case of exophthalmic goitre, given, at first, three drops twice daily, and gradually increased until twelve drops could be taken in the same period of time. This treatment was continued for a year, and the cure complete.—HUTCHINS.

Gout, Local Treatment of.—

Potassium iodide.....	4 drachms
Soap liniment.....	4 drachms
Cajuput oil.....	30 minimis
Caraway oil.....	30 minimis
Rectified Spirits to make 7 ounces.	

Apply on lint and cover with protective.

—*Medical Magazine.*

Infantile Scurvy.—The cause of this condition is, emphatically, a lack of good fresh food.—STARR.

Arbutin as a Diuretic.—This glucoside, which is derived from pipsissewa, winter-green, uva ursi, trailing arbutus, etc., is a white crystallizable substance of slightly bitter taste, freely soluble in water. It is a diuretic soothing to the entire urinary tract. It is especially useful in the very common form of irritable bladder evidenced by constant desire for micturition, great straining with severe pain, and the passing of only a few drops of scalding urine. Given in doses of 1-67 grain every fifteen minutes, it acts like magic, entirely relieving the symptoms in a short time and producing a flow of perfectly bland urine. No other remedy gives such excellent results.—JOHNSON (*Alkaloidal Clinic.*)

Ivy Poisoning.—Muriate of ammonia, in saturated solution, freely applied, results in almost immediate improvement. A saturated solution of sodium sulphite is also efficient; its free application quickly allays the itching and is very soothing. It is unnecessary to employ any internal medicament, unless there is a considerable increase in temperature, when occasional doses of aconite or veratrum may be administered.—*Eccentric Medical Review.*

[The best topical application is solution of chloral hydrate.—Ed.]

Rectal Cancer.—For growths too high to be reached by vagina or anus, place the patient in the Trendelenburg position, make the abdominal incision, clamp the rectum just above the growth and pull out of the way, remove the neoplasm, and use the Murphy button as a means of anastomosis.—MANN.

Chronic Prostatitis.—This, and likewise chronic seminal vesiculitis, unless of very long standing, will be much benefited by rectal irrigations. Both also demand massage by means of the finger introduced into the rectum. The irrigations may be practiced every day at first, and later every three or four days, according to indications; the digital massage, however, should not be repeated oftener than once in five to seven days, and should be discontinued altogether for a time if it aggravates rather than relieves the condition.—*Medical Times.*

Cod Liver Oil.—This is a most excellent haematinic and can be given with benefit in a majority of cases of wasting disease, no matter what the cause may be.—*Medical Council.*

[There is nothing magical about cod-liver oil for all that it has been heralded as a panacea in wasting diseases. The fact is, this agent is only an easily digested form of fat, but for all is by no means the *best* form. It, moreover, is limited in its effect by the tolerance of the stomach; unfortunately it is very nauseous to some people, especially when ingested in quantities sufficient to be of value.—Ed.]

Stomach Disorders.—In some instances, when there is marked arrhythmia of the heart with consequent circulatory disturbances, it is well to begin treatment with from eight to ten drops of tincture strophanthus in conjunction with sodium or strontium bromide to control the cardiac irregularity.—PATTON (*Chicago Clinical Review.*)

Potentilla Canadensis.—This drug has the reputation of causing cessation of the menses if in progress, or preventing their appearance if given before the period. It is also a potent remedy in many cases of "heart disease," so-called, when other remedies have failed.—*Medical Gleaner.*

Neuralgia, Trifacial.—Butyl-chloral possesses, in addition to its soporific properties, a truly specific action on the trifacial nerve; anaesthesia is induced along its whole course after the administration of from fifteen to forty grains of the drug.—LEUBRICH (*Journal de Médecine de Paris.*)

Nasal Spray.—

Carbolic acid.....	15 grains
Ichthyol	120 grains
Alcohol	150 grains
Distilled water to make	6 ounces

Use two or three times a day, in acute catarrhal conditions.

—*Journal de Médecine de Paris.*

Hiccough.—Apomorphine, hypodermatically, in one-twentieth grain doses, frequently relieves when everything else fails.—*Medical Summary.*

Medical Progress.

Fracture of Patella.—Two cases of fracture of the patella illustrate perfectly the operative and non-operative treatment.

G. R.—, aged twenty-seven, was thrown in a runaway accident, and sustained a transverse fracture of the patella, evidently due to muscular contraction, for there were no contusions; there was very little effusion into the joint, and the fragments could be easily approximated. The case was treated by a long posterior splint, elevation of the foot, and approximation of the fragments by means of adhesive strips and bandages; the dressings were readjusted about once a week, and at the end of four weeks daily massage was given. The result was perfectly satisfactory. An operation in this case would have been meddlesome surgery.

M. F.—, aged twenty-six, fell from a two-story window, sustaining a fractured patella; the knee was contused, discolored, and distended with blood, so that satisfactory adjustment was impossible. On the eighth day the joint was opened, the blood clots turned out, the interior cleansed thoroughly with normal salt solution, when a transverse fracture was revealed, the lower fragment being broken in two pieces: There was extensive laceration of the joint capsule, and when this was closed with silvered cat-gut, the fragments were closely approximated. A row of interrupted silvered cat-gut sutures was placed in the periosteum across the seat of fracture, and the wound closed with a subcutaneous cat-gut suture, leaving a small opening at one end for drainage. A dressing of dry sterile gauze and absorbent cotton was applied, and over this a plaster cast. At the end of a week the dressings were changed, and the wound found healed, except at the small drainage opening. A few layers of dry sterile gauze and a bandage were applied, and over this a plaster cast.—This early dressing was made in order to leave off the cotton and apply a closer fitting plaster splint. On the twenty-eighth day after the operation he was still wearing the plaster cast; temperature practically normal throughout, except on the seventeenth day when it went up to 100.3°. He obtained a very good joint; no motion could be detected between the fragments, and he could flex the knee a little beyond a right angle very readily. This case was

a triumph for modern surgery, for without operation he would certainly have had a very bad knee. It is always objectionable to make drill-holes through so small a bone as the patella, and it would have been so in this case on account of the small size of the lower fragments. Experience has taught that the drilling and use of non-absorbable sutures are unnecessary.—MOORE (*North Western Lancet.*)

Two Pregnancies after Double Castration.—

In 1895 both ovaries were removed from a woman with intense bilateral ovariitis, the operation being an anterior olytrotomy, the tubes being left *in situ*.

Eighteen months later, the woman was pregnant, and in due time the child was born after an easy labor. It is certain no supplementary ovary was present; absolutely a third ovary could not have escaped detection. I am not so certain that, in placing ligatures and cutting away the ovaries, a small fragment of ovarian tissue might not have been left in the stump.

As if to further confound the wisdom of those who would bring about an artificial menopause by double spaying, this woman subsequently gave birth to another child.—KOSSMANN (*Munchener Medicinische Wochenschrift.*)

To Precipitate Albumen in Urine.—

Animal charcoal possesses the power, in a high degree, of precipitating the albumen in urine, simply by shaking together. The albumen will be altogether carried down by the charcoal, or at least very greatly reduced in quantity. This method also has the advantage of decolorizing the urine, rendering unnecessary any further treatment of the latter for purposes of polarization.—LEUCHTER (*Merck's Report.*)

Hints in Pelvic Operations.—

It is necessary, when dealing with pus cases, which, never stand anaesthesia and shock at all well, to seek first for the most rapid mode of incision and drainage. In the majority of instances the vaginal route is the best for this purpose, even if a secondary operation should be required later.—*Journal of Surgical Technology.*

Wool Truss for Infantile Inguinal Hernia.—

The worsted-skein truss has much to recommend it in the first year, when the frame is small, thin in flesh, and tender to mechanical pressure or irritation. It can be easily made at the bedside, and renewed at but slight cost. Its employment will insure the hearty co-operation of the mother in carrying out corrective measures.

Although cheap and simple, some skill is required in making and applying. With a tape-line measure the distance around the child on the plane of the pelvic inlet, beginning with and coming back to the hernia; carry the line down on the perineum and up and out in the gluteo-femoral crease, and almost to where it would touch the girdle part. Mark this length on the door or window-casing, at each end drive a three-inch nail half-way to the head, and over these nails wind the worsted (previously rolled from the skeins, just tight enough to keep it from kinking,) using thirty to forty threads, according to size and strength required. Remove the skein, tie in the two loose yarn ends, and in one end loop a foot of white tape, and the truss is ready. Carry it around the child with the long end at the affected groin, pass this longer end through the other loop, and draw down under the corresponding thigh and up into the gluteo-femoral crease, and tie to the girdle. This truss can be worn by frail or delicate infants when any other form would be useless or too irritating, but its use must be coincident with general measures to reduce intra-abdominal pressure, to insure the best results. Usually the cure can be effected in a year or less, and the continued use of the truss causes but little inconvenience.

Before applying the truss, the undescended testicle or encysted hydrocele of the cord should be excluded. The appliance must be worn day and night, even during the bath, and only removed when wet or soiled.—BOLAND (*Medical and Surgical Journal*, Boston.)

Physiology in Public Schools.—

We are glad to note the signs of revolution against the extreme temperance reformers, who, by a trick, have forced so much namby-pamby stuff into the schools under the head of physiology.

Bugaboo morals are the most childish and the soonest outgrown; and the small men and women who devour with large eyed horror the exaggerated statements as to fatty livers and ulcerated stomachs, delirium tremens and cancer of the throat, following upon the use of alcohol or tobacco, quickly learn their untruth.

We know only too well the means by which otherwise excellent physiologies have been padded to make up the requisite percentage of words upon alcohol and tobacco, under a narrow minded censorship that struck out every statement concerning the use of these agents in disease; and we have marveled to see the results of scientific investigations deliberately perverted into false generalities.

We deplore the absolute ignorance of American teachers as well as children concerning the fundamental laws of health, and wish most heartily that temperance in the matter of eating, of tea- and coffee-drinking, and common sense concerning fresh air, exercise and sleep, as well as the economic value of food-stuffs, might be particularly taught; but so unfair has been this so-called "temperance movement," and so great have been the exaggerations perpetuated on an unwary public, that we fear the influence the school may have on all matters of public health, including the dangerous effects of intoxicating drinks and tobacco.

Already Western educators are opposing the teaching in its present form, and the Massachusetts Legislature is tightening the reins. Other States are realizing that they are not only being made ridiculous by their laws, but they are being seriously handicapped by malicious sentimentality in the guise of science, therefore we hope that the day will soon come when the children will not be forced to swallow pure alcohol for practical physiology.—*Medical News*.

Pædiatric Hints.—

When the limbs and trunk of the child are rigidly stretched out, tetanus is suggested:

Osteomyelitis.—

The chief diagnostic evidence is the acutely sensitive spot near the junction of the epiphyses.—FUNKHAUSER.

When unconscious, or in great weakness and prostration, he will be found lying flaccid on his back, with face to ceiling; if found on his side, curled up and with head retracted, a frown will probably be seen, together with the oculo-gomatic line, suggesting cerebral irritation, or, if there is opisthotonus, spinal irritation:

If there is intolerance of light, as in cerebral irritation, the face will be buried in bed-clothes:

In abdominal discomfort, or in rickets, he persistently lies on his face, may even rest on elbows and knees:

Sharp, violent fits of crying, with vigorous movements of the legs, usually indicate colic; the sudden, sharp, single, piercing cry uttered at intervals, the patient meantime lying in a stupid, drowsy, semi-unconscious state, is but too suggestive of meningitis; while the hoarse rattling cry of syphilis is characteristic: *Per contra*, note when he does not cry, as a profound weakness brought on by diarrhoea, and in grave pulmonary affections where breath is too precious:

Dyspnea and acute fever cause suction to be performed in short snatches; syphilis also necessitates pauses for breathing: in thrush or ulceration, suction and deglutition are evidently performed with great pain; if the throat be sore, there is frequent cough and noise in deglutition:

In great prostration, if the child swallows at all, it is an exceedingly hopeful sign.—*Virginia Medical Semi-Monthly*. . .

Old-Time Remedies.—

In these days of modern ideas and modern ways of doing things, many progressive physicians are inclined to leave behind or forget many of the old tried measures and remedies which they have used successfully in treating disease. In the Middle Ages many physicians made a reputation by treating disease with old-time remedies. That many of the newer surgical operations are great improvements, no one doubts, but it is also true that many of the medicines and palliative measures in vogue a few years ago are equally as good in the treatment of disease at this time. In the eager desire to adopt new methods, and particularly surgical ones, physicians are forgetting the old and well tried ones.

A well known surgeon of London, England, was called upon to treat a lady suffering from menorrhagia; the haemorrhage was so frightful and had been so long continued that he despaired of saving her life. He explained to her that the only thing that could be done was an hysterectomy; to which neither she or her friends would consent. Finally, as a *dernier ressort*, he concluded to try an old-time remedy—infusion of digitalis. This effectually controlled the haemorrhage, and, although three years have elapsed, the woman is to all appearances well; she menstruates every month, and eats, and sleeps, in a normal way.

This is only one of the known and well tried remedies, that are neglected; and if physicians were to study *materia medica* a little more closely many of the modern surgical operations would become unnecessary. In their early stages most ills are usually amenable to drugs, and if medicines were properly given much of disease would never reach the point of requiring the use of the knife.

Of all people in the world, a practitioner of medicine, whether physician or surgeon, should be liberal, broad-minded, and far-seeing. He should use the knife when necessary, but should also employ the simpler and less hazardous means of relieving disease whenever possible. To do this he should know the action and province of every well known drug as well as how to perform a surgical operation.—*Sheffield Medical Journal*.

Thyrotomy, Indications for.—

Under improved technique this operation has very few dangers and drawbacks. The indications for its performance are:

Foreign bodies in the larynx, too large or too impacted to be easily removed *per vias naturales*:

Injuries to the larynx—fractures, bullet wounds, etc.,—for the purpose of replacing fragments and holding them in position:

Laryngocoele;—extirpation of the cyst indicated:

In laryngeal stenosis where intubation and dilatation fail:

In acute laryngeal pinchondritis:

In acute laryngeal tuberculosis, including lupus.—Circumscribed cases which

can not be reached by intra-laryngeal interference when the general state of health is good: Here the danger of tuberculous infection of the wound is great:

Scleroma of the larynx.—Preniazek has performed the operation 130 times and considers it the most trustworthy method of dealing with the disease:

New growths in the larynx, (benign or malignant,) but only in those cases which can not be removed by inter-laryngeal operation, with the exception of multiple papillomata in children.—SEMON (*The Lancet*, London.)

Traumatic Stricture of Intestine.—

The fatalities are fifty per cent. Traumatic stricture may occur in consequence of incipient invagination, the rigidity of the muscular wall having been compromised by the trauma. Annular strictures are probably favored by injury of the submucosa and of the mesentery, with resulting disturbance in the circulation and necrosis. Partial or complete laceration may also entail a stricture, as it heals with adhesions. One case is recorded in which a traumatic stricture was consecutive to an invagination which healed spontaneously with expulsion of the invaginated portion *per anum*. Traumatic adhesions between loops of intestines may produce stenosis sooner or later, with symptoms appearing suddenly.—SCHLOFFER (*Die Heilungen a. d. Grenzgebieten*, Jena.)

Death Attributed to X-Rays.—

A lady who fractured the neck of her thigh bone in March last, while learning to ride the bicycle, engaged a local photographer to take an X-ray photograph. An exposure of two hours was given, and twenty days later a second exposure of two hours and ten minutes. This latter exposure seems to have been followed by inflammation and ulceration of the abdominal parieties, and the patient became mentally unhinged, death following. It seems desirable to call attention anew to the fact that X-ray photography has dangers, and that, therefore, the services of medical experts in its use should be procured whenever that is possible, rather than that the process should be left to the non-medical photographer.—*Medical Press and Circular.*

Röentgen Rays and the Aurora.—

A series of experiments, relative to action of a powerful magnetic field upon the cathodic rays in Crookes or Hittorf tubes, show that in such the rays are considerably deflected in the direction of lines of force, and may even be concentrated upon the surface of the glass to such a degree as to cause the fusion of the latter. More than this, they clearly prove that rays that emanate from one and the same cathode, fall in groups whose physical constants are connected by some definite law just as are the frequencies of the different tones emitted by a rod in vibration.

These researches present some importance as concerning the theory of the aurora borealis. Paulsen, of the Meteorological Institute of Copenhagen, believes that the aurora borealis owes its origin to the phosphorescence of the air produced in the upper regions of the atmosphere. Is it not probable then, that terrestrial magnetism may be the cause of such phosphorescence, which becomes intensified in the vicinity of terrestrial poles?—BIRKELAND (*Elektronisk Tidsskrift*.)

Water Purification by Ozone.—

This agent is very slightly soluble in water, hence difficult to put in contact with all the molecules that are to be sterilized; and if only a fraction of a water drop remains charged with bacteria, it will pollute all the rest again. The latest device divides the water to be operated upon into very fine spray, and the inventor offers the assurance that there are all pathogenic bacteria are destroyed. This, however, is open to some doubt. It is much to be desired that some perfect satisfactory method of using ozone should be brought forward, for it is an ideal antiseptic owing to its chemical instability; it decomposes quickly and therefore does not remain in the water. Recently Sennens and Halske treated water from the Spree, at Berlin, with currents of ozonized air and sterilized about one thousand gallons an hour. In case of foul water this costs only about five or six cents per cubic foot. It is safe to predict that ozone will become cheaper in the future and easier to produce, and that its satisfactory use in the purification of water is only a question of time.—DE COURMELIN (*Revue Encyclopédique*.)



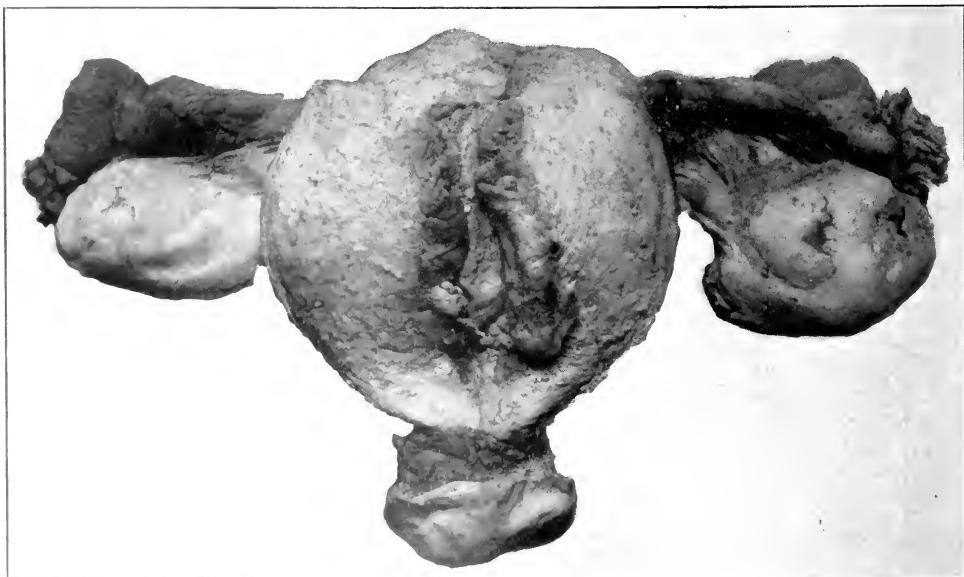
ILLUSTRATIONS IN
MEDICAL PHOTOGRAPHY

FIGURE 1



INTRINSIC MUSCLES OF THE HUMAN TONGUE
X 120

FIGURE 2



DISEASED OVARIES AND UTERINE MUCOUS MEMBRANE



DETROIT MEDICAL JOURNAL

Original Articles.

PHOTOGRAPHY IN MEDICINE.

BY DOCTOR HENEAGE GIBBES.

The present is an age of illustration and especially is this true as regards contributions upon medical or surgical subjects.

A well-written medical paper (using the term in its generic sense), illustrated with reproductions from photographs showing the macroscopical and microscopical conditions, along with the clinical history of the case or cases worked out in a thorough manner, has an individuality that is of more value to the author than any number of pages which reveal at a glance that they are merely compilations.

This is also an age of book-making, and any one publishing an original paper of the kind just described, provided his record is good, will be requested to allow his contribution and its illustrations to be used by someone who is interested, and is engaged in writing up, that particular subject.

A paper to be of value to the medical profession should consist of:

An accurate and full clinical history of the case or cases on which the paper is based; an account of any published cases

bearing on the subject, and illustrating both sides of the question at issue, if there be one.—It is impossible to boycott conclusions adverse to the author, if science and truth are to be served:

When the subject is one that adapts itself to photographic reproductions, nothing aids so much or conclusively as an accurate photograph of the naked-eye appearances; to be sure this is not always possible, owing to the difficulty that often exists in getting a post mortem examination; and it is frequently better to wait for another case where an autopsy can be had, since much more valuable information can be conveyed by a well executed photograph,—e. g. the difference between acute and broncho-pneumonia is well shown in a photograph of a section of the consolidation, taken of the natural size; and, again, in disease of the kidney, if the organ could be divided longitudinally and photographs made of the appearances, as presented in a number of cases, a good deal of metal fog would be cleared up:

The naked-eye appearance should always be supplemented by photographs of the morbid histology taken with the microscope, as this substantiates the diagnosis:

Finally there is the bibliography.—For the average man, to secure this complete, in these days of many writers, is an impossibility; there are, however, a few talented individuals in the world, who have a natural bent for this kind of work, and if the writer of a paper can secure the ser-

vices of such he will be fortunate. In the majority of instances it is better to simply publish the case or cases in good faith, and leave the compiler to utilize them, only seeing that the source of information is acknowledged.—This latter is a difficult matter in itself, for it is astonishing how many men will be dishonest in this respect, especially when far away from the fountain head.

The Camera.—Many consider photography so expensive that its employment, in the manner suggested, is practically inhibited. But this is not necessarily true, since a thoroughly efficient outfit can be had for a comparatively small sum.—I am not speaking of the cheap class of cameras, made only *to sell*; these would only suit one who desires nothing better than cheap work,—if one aimed to become an expert trap shot, he certainly would not purchase a gun that would not make a good pattern when tested, and would shake to pieces in six months; and it is the same with a camera.—One is demanded that can always be depended upon; that will last for years; and one also that can be employed for other purposes than as a mere adjunct to medical investigation,—one that can be used for pleasure, as well as research and enlightenment: Such can be procured without spending a small fortune, and a few lessons from an expert will enable the tyro to use it.

A camera that fully complies with all essentials is made by the Century Camera Company, of Rochester, New York, and is known as the "Century:" It is thoroughly well built and, as the title implies, it is the aim of the manufacturers to make it *the* camera of the century; and no one need fear, if he purchases one of these instruments, that he has made a poor investment. There are a number of sizes and grades and the highest of the latter is the "Century Grand" which leaves nothing to be desired: The price, also, is extremely moderate for such a perfect instrument. The best size for all-around

work is five by four inches, as the negatives can easily be enlarged with the same lens and camera, (as I shall show further on) and lantern slides can be made by contact without losing enough to signify of the original negative.

For those who desire to make photographs with the microscope, a camera with very long bellows, and front and back rack and pinion, is required; this can also be used for enlarging and reducing. The best for this class of work is the long-focus "Premo" of the Rochester (N. Y.) Optical and Camera Company; it has the longest extension of any made—the one I employ is eight and one-half by six and one-half inches, with a bellow extension of forty-five inches. The price is extremely reasonable, and the instrument is perfect as to stability and workmanship. Plates, not films, must be used in this work.

To prepare a morbid object for reproduction, it must be put in strong alcohol for a time, so that, when it is removed to be photographed, it will dry quickly, obviating any reflection from wet surfaces.

The object (for instance a diseased heart or uterus) must be fastened on board—the side of a box will do—so that it is at right angles to, and its centre coincident with, the optical axis of the camera and lens. This is a simple matter easily arranged without special apparatus.

If desired to reproduce an object in natural size, the camera must be racked out until the distance between the ground glass focussing screen and the centre of the lens is double the focus of that lens; therefore with a lens of six inches focus the bellows must be a little over twelve inches long; the object must also be placed at the same distance in front of the camera, measured from the centre of the lens, when the result will be a photograph the same size as the original. One cannot, of course, photograph a diseased uterus

(for example), of the natural size, on a plate only five by four inches. To do this there are two courses open: Either to use an eight and one-half by six and one-half camera, or to move the object further from the camera and shorten the bellows until the image on the focussing screen is small enough for the plate, afterward enlarging on bromide paper.

The Lens.—It is often said that the lens is "*everything* in a photograph outfit;" this is only partially true; the whole combination must be good to secure good work. Within the last few years a revolution has taken place in the manufacture of lenses, the discovery of Jena glass having enabled opticians to correct these in a manner they were unable to do formerly. Series of anastigmatic (literally without a point) lenses are now made in which the two combinations (which together form the lens as a whole) are themselves perfectly corrected and that can, also, be used separately. These lenses are of two forms: In one the two combinations have the same focal length; in the other the foci differ.—Consequently one offers a doublet in which the single combination can be used by itself and that has about double the length of focus of the whole lens; in the other is a three focus lens in which (taking a seven inch lens as an example) the whole lens has a focus of seven inches, the back combination a focus of eleven inches, and with the front combination placed at the back, a focus of fourteen inches,—the picture is enlarged by the longer focus, at the same time the exposure is increased. These lenses are made in Germany, in England and in this country, and are all good. They, of course, are very expensive, and many would not care to invest so much money; but I have made a very careful test of a number of these and compared with the lenses furnished with the Century Cameras, and found that, for the work I have been describing, the latter answer every purpose,

and are fully equal to the most expensive anastigmat. The Century lenses have a triple focus such as I have already described, and can be employed either in combination, or separately, with excellent results.

The camera must have bellows long enough for the fourteen-inch single combination in the five by four size, as a seven-inch lens is supplied with it; this length is only found in the "Grand" series, but it must not be understood that the cheaper series are not as well made, for they are exactly the same as regards workmanship, and differ only in not possessing so long an extension.—Series F for instance has an extension of twelve and one-half inches, and consequently a lens with a focus of six inches would be required.

In selecting a lens for medical work, what is required is depth of definition,—rapidity cuts no figure. It must be understood that depth of definition is a property that does not belong to any particular form of lens, for on comparing two of different foci it will be found that, the one possessed of the shorter focus gives the greater depth; for instance, in a five by four camera, a seven-inch lens is supplied because it has a longer focus than the diagonal of the plate, and this is done to make sure that the whole plate is covered with the full aperture of the lens. As a matter of fact one of the Century lenses of six-inch focus, will cover the plate and do better work than the seven-inch, in photographing diseased conditions where depth of definition is required.

To get depth, the lens must be stopped down to cut off the marginal rays; this reduces the illumination and lengthens the exposure. Stop No. 32 of the uniform system, or "*f* 22.6," is probably the best, as it gives enough light to judge the exposure and also secures the requisite depth of definition.—I am speaking of condi-

tions where daylight is used as the illuminant.

Enlarging.—It is an easy matter to enlarge to any size required from a five by four negative. First is demanded a small room, preferably with a north aspect, at the top of the house where nothing will come between the sky and the camera. Block out the window with heavy paper, cut out a place for the five by four negative, and arrange something for the camera to stand on. Now, put the camera over the negative and arrange a cloth round it, so that all the light coming into the room must pass through the camera. Fix a board at right angles to the camera and tack on a piece of white card-board; focus the image on the card-board at such a distance as to secure the magnification required; close the shutter and pin up a piece of bromide paper.

Second, expose and develop.

The exposure required varies greatly according to the light and the negative, but it is easy to decide by exposing a small strip of bromide paper and allowing the light to act on it for different periods of time: This is done by dividing the strip into four parts, by pencil marks: Then cover three-fourths of the paper with a card and expose the remaining fourth for five seconds; shift the card and give the second section five seconds; and so on. When finished, the first section will have had an exposure of twenty seconds; the last one of only five seconds; the intermediate ten and fifteen seconds respectively,—this is simply as an illustration, for on a dull day, or with a dense negative, considerably more than twenty seconds may be required. On developing the strip (with a normal developer) note that portion which develops normally will give the correct exposure.

The Paper and Developer.—It is best always to stick to one make of paper until it has been fully mastered, and at the same time to use one developer. In my

experience ferrous oxalate is the best all-around developer for bromide paper, either for contact prints or enlargements. With proper exposure one does not get harsh effects, and development can be stopped at any moment by simply pouring off the developing fluid and flooding the paper with dilute acetic acid. There are also many little dodges by which a negative—that, in the ordinary way would produce a print that would set the teeth on edge,—can be made to yield a soft print with harmonious effect.

I have found an acid fixing-bath to be the best, and as far as I can see it does not affect the permanency of the prints.—How often one discovers that which is theoretically wrong is practically right!

Permanency of bromide prints is only assured by thorough fixing and equally thorough washing.

As to the particular kind or make of bromide paper, there are so many on the market it is difficult to say which is the best. There is a great divergence in price also, and one may pay from fifteen cents to one dollar for a dozen five by four papers. It is my experience, that the most expensive papers are not always the best. As I have already said, take one make of paper and one form of developer, thoroughly master them, and when this is accomplished it will be possible to judge whether one is getting all he ought from his negatives. There is one special point to look for, and that is: *To get a paper in which the image does not sink in and become more or less indistinct in the fine details!* A sharp brilliant image is what is wanted, in which all the minor details are brought out clearly, and fuzzy photography is absolutely useless.

Plates.—The question of the photographic plate best suited for the work I have been describing, is a difficult one. There are a number of different brands on the market especially adapted to this particular purpose; but there cannot be

any doubt as to the superiority of the ortho-chromatic plate, and in photography with a microscope such is almost indispensable.

I have recently found that, in photographing with a microscope, one of the small ray-filters now so much used in landscape photography, makes a good color screen and costs but little. It can be placed on the eye piece of the microscope, if that is used, or on the barrel and made to fit by cutting a ring of cork and putting it inside the rim of the filter. Different shades can be obtained, or a ray-filter made, by means of a cell containing colored liquid; such, however, generally leak. The liquid can be varied to suit all conditions; and the best fluid is a solution of potassium bichromate, though some of the eosin group of anilin colors will sometimes give a better effect.

Photography with the Microscope.—No elaborate apparatus is required for this work. A good firm stand and well corrected objectives are, of course, a "*sine qua non*," but then everyone, who does work of any kind requiring a microscope, will have these. Next comes the camera and, as I have said, the long-focus Premo is pre-eminently suited for this purpose; I employ a five by four with a bellows extension of twenty-six inches, which is easily arranged, and gives perfect results when a picture not larger than this size is required.

The next question is the illumination, and for this an acetylene bicycle-lamp works well. Any one with a moderate amount of mechanical ingenuity can arrange the camera, microscope, and lamp, so that their optical axis is coincident throughout.

A small ray-filter can be fixed on the barrel of the microscope, and with an ortho-cromatic plate in the holder, a good negative can easily be made. There are one or two points on which success depends:

There must be no tremor to effect the apparatus:

The film on the plate must register, absolutely, with the image on the focussing screen:

There must be no reflections from the inside of the camera or barrel of the microscope.—A formula for making a dead black color to remedy this can be found in any of the Photographic Annuals:

The tyro should begin with a low power such as the two-thirds or four-tenths, and without the eye piece:

The necessary exposure must be learned by experience.

There still remains an important point to be considered, namely, the reproduction of photographs by a mechanical process such as is demanded for good, honest work. Many methods have been tried during the last fifteen years, and there has been a gradual evolution, until now a point has been reached where a photograph can be reproduced with absolute fidelity as to outlines, scope, shadows, etc. In my work on Pathology and Morbid Histology, published in 1891, the reproduction of my photographs was done in a manner that I had never seen approached until then; subsequently, however, I have discovered the work of the Peninsular Engraving Company (of Detroit) is away ahead of anything I have ever seen, and probably represents the fastigium of reproduction and illustration at the present day. The illustrations, that accompanies this article, show difficult subjects reproduced in a most perfect manner.

All the photographic reproductions in this Journal have been made by this Company, and evidence that a specimen properly prepared and photographed can be duplicated in every particular with absolute accuracy and fidelity.

I trust that what I have said may prove of value to some members of the profession, and that I have shown that thorough work in every detail, reproduced and put on record, as it now can be, will prove of material benefit to its author.

DIGITALIS.*

BY DR. G. ARCHIE STOCKWELL, F. Z. S.

Digitalis is indigenous to the United Kingdom and most parts of Europe, and has also been introduced into America where it is grown more as a floral ornament than for commercial purposes. It is claimed the digitalis that is medicinally the most active grows in Switzerland.*

Digitalis purpurea is the official plant, through some Pharmacopœias take cognizance of other forms, which undoubtedly are employed for adulterative purposes; in fact only the most extreme care and closest examination will ensure a proper product of the crude drug.

The leaves of the official digitalis should be of the second year's growth, when they are most active, and gathered either in July or the latter part of June, before the seeds begin to ripen and when about two-thirds of the flowers have expanded; they also require to be dried in the dark, in baskets, over a moderately heated stove, or in a brick oven, and if this operation is properly performed they will exhibit a dark green hue, with an almost total lack of odor except such as generally obtains to all dried herbs and leaves. The taste is decidedly nauseous and bitter. Much of the uncertainty that accrues to the therapeutic uses of digitalis is doubtless due to improper seasons of plucking, careless drying or packing, or too great age; again the best qualities and those most carefully collected and husbanded, even when pressed and wrapped in stout paper, or kept in tins and jars that are not hermetically sealed, manifest distinct loss of remedial virtues after a few months, they may become practically inert at the expiration of a year.

Much of the so-called digitalis leaves found in the market, as before intimated, are of inferior properties, and adulteration by means of the foliage of the common potato, the black nightshade, or black mul-

lein (*Solanum tuberosum*, *S. nigrum*, and *Verbascum nigrum*) or perhaps *Coniza squamosa*, is by no means uncommon, all which, in the dry state, possess a remarkable resemblance to purple fox-glove. Such sophistication, it may be remarked, *en passant*, is readily detected by boiling one of the suspected leaves in the smallest possible quantity of water, pouring upon an opalescent plate, and adding a drop of ferric chloride, when if a green reaction occurs the leaf is digitalis; if blue, a substitute.

Preparations and Doses.—Digitalis leaves, powdered, 1-2 to 3 grains.

Digitalis infusion (B. P.), 1 to 4 drachms; (U. S. P.), 2 to 8 drachms.

Digitalis abstract, 1-2 to 1 grain; Squibb's, 2 to 5 grains.

Digitalis extract, solid, 1-6 to 1-2 grain.

Digitalis extract, fluid, 1 to 2 minim,—“specific” tincture and “mother” tincture ditto.

Digitalis tincture (B. P.), 5 to 40 minims; (U. S. P.), 3 to 30 minims.

Digitalis, ethereal tincture, 2 to 8 minims.

Digitalis vinegar, G. P. (digitalis, 1; alcohol, 1; vinegar 9 parts), 10 to 30 minims.

Digitalisin (concentration), 1-16 to 1-4 grain.

Digitalein (Schmiedeberg's), 1-64 to 1-32 grain.

Digitaléine (Nativelle's).—See *Digitonin*.

Digitalin (U. S. P. and B. P.), obsolete.

Digitalin (Homolle's and Quevenne's, French Codex), 1-60 to 1-15 grain.

Digitalin (Schmiedeberg's; or *Digitalin verum*, Kiliani), 1-64 to 1-32 grain.

Digitaline (Nativelle's), 1-250 to 1-60 grain.

Digitonin (Nativelle's digitaléine), no longer employed.

Digitoxin (Schmiedeberg's), 1-250 to 1-125 grain.

DIGITALIS ABSTRACT.—This is merely a dried solid extract powdered and mixed

**The Chemist and Druggist*, (London.)

with some inert material to prevent subsequent agglutination, and should be made without heat by the substitute process. It presents a green color and the characteristic digitalis odor. Within a short time after making and placing in

container, the powder contracts very much and adheres in a fairly solid mass, that is, however, easily broken up by means of a stiff spatula, and then readily reduced to powder again. The abstracts in market vary greatly as to strength as his form of galenical is generally, at the present hour, admittedly obsolete, and not granted official recognition.

DIGITALIS EXTRACT.—This possesses practically the same odor, somewhat intensified, as the abstract, and properly made is of so dark green a hue as to appear nearly black when *en masse*; but when thinly spread the verdant hue is most marked.—A brownish solid extract should excite suspicion and is suggestive of too great heat employed in manufacture, in which case it is almost certain to prove inert.

DIGITALIS INFUSION.—This requires to be made with great caution and from carefully selected leaves of bright color and distinctive odor, and at a very low temperature. That of the U. S. P. is only about one-half the strength prescribed by the B. P., a fact that must be taken in account, according to the residence of prescriber or patient. Note, that fresh leaves in infusion are nearly one-third more active than the dried.

DIGITALIS FLUID EXTRACT.—A good preparation should represent a definite amount of drug, namely: One gramme of leaves to the cubic centimetre of fluid. Fancy titles mean little, and the "normal liquid," so-called, is nothing, more than a fluid extract supposed to contain the regulation amount of the drug, as proved by assay, and a uniform proportion of "total glucosides."

DIGITALIS TINCTURES.—"Concentrated," "specific" and "mother" tinctures should

have, practically, the same strength as the fluid extract.—It may here be remarked that these are supposed to be made with pure alcohol, while the fluid extracts, only too often, in the monetary interests of manufacturers, contain an excess of glycerin.

The tinctures of the B. P. and U. S. P. vary slightly: The former exhibits a strength of 3 to 24 respectively of bruised leaves and proof-spirit; the latter 3 to 20 of drug and dilute alcohol.

The ethereal tincture is twice the strength of the U. S. P. alcoholic tincture.

Owing to the rapid deterioration of digitalis leaves after curing, the most reliable fluid preparations are those to be obtained from responsible Homœopathic and Eclectic pharmacists, both being in duty bound to employ the fresh leaves of the uncultivated plant in its second season when about to bloom. The Homœopath reduces the leaves to a pulp, encloses in a piece of new linen, subjects to pressure, and mixes the expressed juice by brisk agitation with an equal amount (by weight) of alcohol, the whole being then allowed to stand for eight days, in a well stoppered bottle, in a dark, cool place, after which the product is filtered. The Eclectic macerates eight ounces of fresh leaves in half a pint of alcohol (76%).

DIGITALIN.—This title, so far as the former signification of a resinoid or concentration is concerned, is now obsolete to all Pharmacopœias and replaced by Digitalisin. At best, this is a very uncertain product as regards strength, and consequently should not be employed when other preparations are available.—Prior to 1890 "digitalin," in medical literature, may be safely considered to represent the concentration.

DIGITALIS VINEGAR.—This still retains a place in some Continental Pharmacopœias, but offers no advantages over other fluid preparations, consequently has been dropped by all Anglo-Saxon authorities.

DIGITALIS LINIMENT is merely a mixture of equal quantities of official tincture of

digitalis and "liquid opodeldoc" (Soap lini-
ment).

OINTMENT AND POULTICE.—Digitalis ointment may be made of any desired fat and of any required strength, the usual proportions being 1 of solid extract to 9 of base; it should be mixed extemporaneously, as required, since it does not readily keep, especially in warm weather. Digitalis poultice may take the form of a fomentation of the leaves, or be made by using an ounce of the tincture to the requisite amount of linseed meal tempered with hot water.

Active Principles.—The so-called active principles—no alkaloid has yet been discovered,—consist of a number of glucosides viz., Digitalin, Digitalein, Digin-tonin, Digitin, and Digitoxin. Unfortunately, great confusion exists regarding these preparations, which has been fostered by Pharmacopœial errors: Thus, the Digitalin of Homolle and Quevenne, recognized by French authority, is an amorphous, yellowish white powder, inodorous, intensely bitter to taste, extremely irritating to the Schniderian membrane, and highly poisonous; it is sometimes found as small scales.—Chemically speaking, it is a mixture of the digitalin of the German Pharmacopœia and digitoxin of Schmiedeberg. Another form, one that also has the sanction of the French Codex, is *Digitaline* (mark the final e) *cristallisée*, or the *Digitaléine* of Nativelle, and appears as white, crystalline tufts or needles, and consists almost wholly of Schmiedeberg's digitoxin; it is very bitter to taste, slowly eliminated and consequently "cumulative" in action, and dispensed only when "crystallized" digitalin is ordered. Both the foregoing are insoluble in water and ether, but the crystallized form yields readily to chloroform and rectified spirit.

The **DIGITALIN** of the German Pharma-copœia is identical with the *digitalin verum* of Kiliani: It is a white, or yellowish amorphous product, consisting of digi-

taléin and digitoxin; is soluble in water; in alcohol in the proportion of 1 to 1000; practically insoluble in both chloroform and ether.

DIGTALEIN (Schmiedeberg) is also an amorphous yellowish-white powder of intense bitter taste, soluble in water and alcohol, but slightly so in chloroform and ether; but as before remarked, this is the chief constituent of the German Digitalin.

DIGTOXIN.—This glucoside of Schmiedeberg is the most poisonous of all the digitalis principles, and likewise markedly "cumulative" in action owing to the difficulty with which it is acted upon by the emunctories. It occurs as a white crystalline powder, soluble in chloroform and alcohol, slightly soluble in ether, insoluble in water. When digitoxin is employed it is recommended that a solution be made in alcohol, chloroform and water, and that it be administered by clyster*:

DIGTONIN.—This appears to be identical with, or is at least closely related to, saponin, the active principle of quillaia bark. It is found in the form of yellow granules, soluble in water and alcohol, but possesses none of the properties for which digitalis is employed.

DIGTIN.—This is a coarsely granulated, crystalline powder, soluble in alcohol, ether and alkaline solutions, but is physiologically and therapeutically inert.

DIGALIRESIN.—This and Digitoxiresin, as well as Digitalacrin, Digitalosmin (a stearopten),* and Digitaloic Acid,** purport to be other derivatives; the first two respectively, of the digitalin and digitoxin of Schmiedeberg. Beyond this nothing of certainty is known.

The Therapeutic Society ought to see that

*Digitoxin 1·96 to 1·64 grain; chloroform 4 minims; alcohol (90%) 1 drachm; water, to make 14 drachms.—For a single dose.

**Segregated by Walz in 1852.

**Isolated by Morin in 1845. Fluckiger declares to be malic acid only.

the French Codex suppresses the amorphous digitalin and admits only the crystallized. The latter is the only one of the digitalis products which represents a really definite principle, and one of constant action and well recognized from a therapeutic standpoint. Digitoxin is not a definite principle, but an indefinite composition, variable in activity.—BARDET (*Les Nouveaux Remedes*; No. 2, 1895).

Though much has been said against the constancy of action of digitalin, the fault lies in improper method of prescribing. The drug has been used with excellent effect and has proved chemically its superiority over other derivatives of digitalis in cardiac asthenia and pulmonary weakness.—MASSIUS (*Bulletin Academie Royal de Medicine de Belge*, vii, 1893; CORIN (*Les Noveaux Remedes*; May 8th, 1895).

The good results obtained from digitalis depend chiefly upon the complex constituents of the drug, and not on the presence of any single derivative.—HARE (*Annals of Universal Medical Sciences*; vol. 5, 1896).

The employment of the glucosides, one and all, is not to be recommended.—ROTH (*Modern Materia Medica*; 1895).

Physiological Action.—Though digitalis *per se* has been before the medical profession for more than three centuries, the fact remains that its physiological attributes are by no means thoroughly understood; indeed, they constitute a subject upon which there is great difference of opinion. It may be affirmed that experiments upon mammals, birds, and batrachians have added practically nothing to the knowledge already possessed regarding the action of digitalis when introduced into the economy of man either in health or disease. Part of the trouble may have arisen from the fact that many of the preparations, as found in shops, are practically inert, while the different dosage, and forms of exhibition as employed by different observers, inhibit uniformity: The action on the two-chambered heart of the frog, or three-chambered heart of the bird, both of which animals excrete solid urea, cannot coincide with that on the four-chambered heart and the fluid-excreting gland of the mammal, while, as is well known, there

are few drugs toward which individual members of the human family are so generally and widely idiosyncratic. Again, the action of watery and alcoholic preparations are by no means identical, owing to the differences in the solubility of the various glucosides in these *menstrua*; an infusion, for instance, holds in solution chiefly the digitonin, while the tincture contains digitalin and digitalein,—neither contains much digitoxin, but the tincture necessarily carries more than the infusion. Notably the infusion is more directly and promptly diuretic, and the B. P. tincture more so than that of the U. S. P., but the latter two afford the best results when the heart alone is to be acted on. But it is doubtful if the tincture, *solutus*, ever acts as a true diuretic, except in the presence of a heart-lesion such as is found in connection with some forms of hydrops. The drug often fails completely in securing the desired action clinically, because the wrong preparation is employed, and it may here be noted that little reliance is to be put on the glucosides, at least not until we are possessed of more definite knowledge regarding their composition and physiological relations. Not only is their use to be deprecated, but they are generally dangerous and sometimes remedially worthless. Digitoxin especially is so highly toxic and so difficult of elimination as properly to bar it from official recognition. How often is seen the statement that digitalis is a powerful sedative, and again that it is a heart-stimulant? This conveys little information, because it is conflicting; yet it may be true, and depends solely upon the dosage, and the peculiarities of the individual patient. In fact, there is no drug in the *materia medica* that requires more careful handling or more careful study of effects in each and every one for whom it is prescribed; and again there is no drug more certain in securing definite results, when intelligently exhibited.

Regarding action on heart and circulation, it is deemed best to give in abstract the various views:—

The action is that of a stimulant in Doctor Austie's sense of the term: and that renders it especially useful in cardiac weakness whether this condition is accompanied by extremely slow or extremely rapid action:—WM. MURRAY (*Medical Times and Gazette*; London, 1896).

Its action as a stimulant may be explained by supposing that in the case of a slow heart it improves the molecular arrangement of the sarcous elements, or that it excites the nerve centres from which the nervous power of the heart is derived; and in the case of the weak but rapid heart it acts by strengthening that regulating or restraining (vital) influence which, while maintaining the activity of the tissues at a normal rate, checks undue and riotous action in the same.—RADCLIFFE.

In full doses it produces a great rise in arterial pressure, followed by a marked fall. It acts on the inhibitory nerves and on the heart muscles; the increased action being due to vaso-motor spasm and to stimulation of the heart.....When given in frequent small doses, where absorption is immediate it influences all the organic functions as a depressant; it produces.....a marked change in the character, regularity, and frequency of the pulse-beat.—The influence on the heart is not always uniform, but variably and often unreliable.—ELLINGWOOD (*Materia Medica, Therapeutics and Pharmacology*; 1900, page 247).

Primarily acts upon the heart as a stimulant, increasing the tension and the pulse rate; larger doses, act as a sedative, reduce the pulse, but the tension remains unaffected. The diastole is prolonged while the systole is increased in vigor. A lethal dose produces a tetanic contraction of the cardiac muscle, particularly of the left ventricle, the organ being arrested in systole. The effect of the stronger systole and the prolonged diastole is a reduction of the number of pulsations. Not only does a contraction of the heart muscle take place, but a marked contraction of the arterioles also results, so that the blood current is reduced in size and the amount of blood sent through the arteries to the different parts of the system is decreased. A rise of blood pressure then ensues from the resistance of the narrowed arterial calibre and increased systolic action. From the fact, that after the administration of full medicinal doses a change of posture, as from the recumbent to the upright position, occasions a greatly increased number of pulsations

and a marked diminution of cardiac force, it has been assumed that no real power is imparted to the heart by digitalis.—This has been explained by others as an occurrence only met with when the tonic action is about to verge into that of exhaustion and from over stimulation.....A lethal dose causes the tetanic contraction above mentioned, obstructing the passage of the blood through the organ, and death takes place from spasm, resulting in syncope.—FELTER and LLOYD (*King's American Dispensatory*: 1900; vol. 1, page 655).

It prolongs diastole and thus rests the heart; but this good is counterbalanced by the high arterial pressure induced, and the consequent straining of cardiac valves.—CHISHOLM.

Claude Bernard evidences, as the result of experiment with the drug, that it causes at first agitation, and after some hours death, suddenly, as if from syncope. A peculiarity of poisoning is that immediately after death the red arterial blood continues to be poured into the left cavity of the heart, because respiration continues after simple arrest of cardiac pulsation. Death occurs therefore from cessation of heart's action, and at first the organ is dilated by the blood that continues to flow through the cavities. Cardiac rigidity, however, follows much more rapidly in the muscular structures of the heart than in other muscles of the organism. Contraction of the ventricles therefore rapidly replaces the dilation, and in the course of a few minutes the ventricles empty themselves of the blood which has been poured into them.—Time required about fifteen minutes.

Digitaleine acts more powerfully on frogs than on the human heart; the organ itself as the result of poisoning appears flabby.—VULPIAN (*Boston Medical and Surgical Journal*; July 21st, 1864; vol. 70; page 501).

In 1864, a Homœopathic practitioner, one La Mommerais, was placed upon trial for poisoning his mistress, Madame de Pauw, to secure 22,000 francs for which her life was assured, the toxic agent employed being claimed to be digitaleine.

The testimony evidenced that the drug produces unconsciousness following abun-

plant cold sweat, and great disturbance of circulation, the pulse being irregular and intermitting; also induces retching at times, but does not necessarily vomit;—The victim complains of the head; whitish froth exudes from the mouth; the vomiting matters are either glairy or bilious. Finally the drug seems to preserve the cadaver in an unusual manner, since the body of Madame de Pauw gave no evidence of decomposition on the thirteenth day after death.

Digitalis does not diminish arterial action unless given in poisonous doses and quantities; but it has the power of lessening irritative frequency of the heart and arteries, which is accomplished by its narcotic, anti-irritant properties.—TULLY (Materia Medica and Therapeutics; vol. 1; part II).

The action of digitalis is divided into three stages: The first is that of stimulation of the vagi; the second, sudden depression of the vaso-motor apparatus of the renal arteries; third, depression of the vagus, exhaustion of the ganglia, weakening of the heart, and the circulation begins to fail.—CAWASJEE (Practitioners Vade Mecum; Bombay, 1891).

As an efficient and manageable sedative, digitalis is practically valueless; by sedative is implied direct influence exerted upon the central organ of circulation which has caused the drug to be designated by some as "the opium of the heart." The heart is affected by digitalis in two ways: Either it acts as a depressant or an antispasmodic.—MUNK (Guy's Hospital Reports).

Pressure in the pulmonary artery is reduced rather than increased under the action of digitalis at a time when the aortic pressure is enormously augmented. The importance of this is easily seen, as it implies an extraordinary physiological disassociation between the right and left heart.—BAYET (Proceedings of Royal Academy of Medicine of Belgium; fourth series; 1892).

The action upon the heart is a double one in that it creates two opposing forces. By the action on the heart muscles it steadily strives to cause contraction or systole of ventricles; by its action on the vagi it equally steadily struggles to produce diastole or dilatation of these cavities. In medicinal doses neither of these tendencies get the upper hand, for both are equally excited, so that now increased systole occurs, now increased diastole.—HARE (Practical Therapeutics, 1894.)

The action of the drug may be summed up by saying that in moderate doses it stimulates the muscular portion of the heart (probably of its ganglia), increases activity of the inhibitory apparatus, and produces contraction of the arterioles. As a consequence of the first action, the cardiac beats become stronger; as a result of the last, there is narrowing of the blood-paths, and to the passage of the vital fluid an increased resistance which, acting on the already excited inhibitory system, aids in slowing the pulse. Decided therapeutic doses produce great reduction and sometimes dicrotism of the pulse, and increase the size and force of the wave; at the same time the arterial tension is augmented.—H. C. WOOD (Principles and Practices of Therapeutics; 1894).

Digitalis lessens the number of cardiac pulsations, prolonging diastole, energizing systole, and finally paralyzing the heart in systole. This is induced by direct stimulation of the cardiac muscle, and possibly of the contained motor ganglia, as well of the peripheral inhibitory fibres of the pneumogastric. Moderate doses cause a rise of arterial pressure, probably by contracting the arterioles through stimulation of the vaso-motor centres of the cord.—BIDDLE (Materia Medica and Therapeutics; 1895).

In therapeutic doses it slows the beat of the accelerated heart, regulates the beat of the arrhythmic heart, and greatly augments systolic powers and the diastolic resistance. These effects are developed equally on the two sides of the heart. In relation to mechanism, the effects produced by the ventricles are not subordinate to a primary action of auricles; the action produced on the heart is not secondary to a primary action on the contractile vessels of the aortic system, as the gradual ascension of aortic pressure does not produce the same effect as the drug; and the abatement of velocity produced by digitalis resembles neither that which is produced by suspension of the activity of the accelerator nerves of the heart, nor those produced by excitation of the heart-modulators. It thus seems that the action of the drug is first manifested on the cardiac muscular fibre.—FRANCOIS-FRANK (*Le Bulletin Médical*; July 3d, 1895. *Journal American Medical Association*; July 27th, 1895).

German Sée as confidently declares that the action of digitalis is greater on the right side of the heart.

The principal effects are upon the circulatory apparatus, the action of the drug varying according to the size of the dose. Medicinal doses

cause the pulse to beat stronger, firmer, and slower, the strength of the beat being due to stimulation of the cardiac ganglia and the muscular fibres themselves. Arterial pressure is raised through stimulation of the vaso-motor centre in the medulla, and the ganglia situated in the muscular coats of the blood-vessels, causing a contraction of both the arteries and arterioles. This increase of arterial tension gives firmness to the pulse beat; its slowness is due to lessened frequency in the heart-beat caused by stimulation of both the roots and the ends of the cardiac vagus, and consequent lengthening of the diastolic period. Large doses may cause the pulse to beat faster and still increase cardiac pressure, owing to over-stimulation of the pneumogastric and consequent exhaustion; the inhibition being removed and the heart beating under the influence of the sympathetic nerves, its beats are more frequent. The arterial tension is still high, because the mechanism presiding over the calibre of the arterioles is not so easily overstimulated as the vagus, and contracts still more, which, with the increased action of the heart, tends to increase arterial tension.—BUTLER (*Text Book of Materia Medica, Therapeutics and Pharmacy*; 1896).

Digitalis slows the heart, increases inhibition, and stimulates the motor apparatus; paralyzes cardiac ganglia by over-stimulation; raises arterial tension, though slowly, possessing cumulative action.—CULBRETH (*Manual of Materia Medica and Pharmacy*; 1896).

Digitalis slows the beat of the heart; the diastole is prolonged and, while the duration of systole is not altered, its force is greatly increased; so much so that after large doses the heart becomes pale because every drop of blood is squeezed out of it. If a larger dose is given, the intense systolic contraction is not uniform all over the organ. The auricles and ventricles do not beat synchronously; and even one portion—the apex, for example—of the ventricle may remain spasmodically contracted during the diastole of the remainder of the cavity, causing the heart to assume “hour-glass” and other curious shapes. These phenomena are due chiefly to the direct action of the drug on cardiac muscle. Even small doses of digitalis actually increase the amount of the work done by the heart in a given time. Moderate doses induce great rise in the blood-pressure; it is clear the drug contracts arterioles by direct action on their muscular coats. It also stimulates the medullary and spinal vaso-motor centres.—HALE WHITE (*Materia Medica and Therapeutics*; London, 1896).

The greatest and characteristic action of the drug is that it affects elasticity of cardiac muscles without at first modifying its contractile power, as indicated by increase in the volume of the pulse, although the absolute working power of the heart is neither increased nor decreased; at the same time the quantity of blood driven into the aorta is greater than before not only at every beat of the pulse, but even in a given unit of time; notwithstanding the number of pulsations be diminished, the result is a better filling of the arteries and an increase in blood-pressure. Accompanying this condition there is slowing of the pulse due to stimulation of the inhibitory mechanism of the heart. Finally, in conjunction with continuous high pressure there is irregularity both in the action of the heart and in the frequency of the pulse. Digitalis does not exert a sedative action on the muscular substance of the heart and although the organ may be beating more slowly it may also be doing more work.—WILLIAM MURRELL (*Manual of Materia Medica and Therapeutics*; London, 1897).

Digitalis undoubtedly does affect, directly—i. e., immediately,—the muscular tissue of the heart, including persistent contraction. Inasmuch as this action of the heart is independent of the agency of nervous tissues, it seems presumable that it may affect other muscular tissue in the same way. It does, undoubtedly, cause strong contraction of the blood-vessels when these are quite cut off from the central nervous control; hence it must act either directly on the muscular tissue of the walls of blood vessels or on some peripheral nervous apparatus that governs the muscular tissue of the blood-vessels. In therapeutic use it may be conceived that digitalis will act in different ways. By strengthening the action of a weak heart; by reducing the strength of the beats of a heart acting too powerfully; by lessening the frequency of the heart's beats; by correcting irregular action of the organ; by increasing tonicity and so lessening the size of the cavities, thereby obviating the condition of over-distension which the stretched ventricles are unable to contract upon the contents, a condition threatening complete asystole—in the second of the propositions a different and fuller dosage will probably be required.—RINGER and SAINSBURY (*Hand-book of Therapeutics*; London, 1897).

The muscular action of digitalis extends to the auricle as well as to the ventricle, although in the former it is often concealed, owing to the inhibitory mechanism having more influence than division of the heart and there opposes

ore directly than in the ventricle.—CUSHNY
Journal of Experimental Medicine; No. 3,
1897).

It has been the general view that each preparation is capable of producing effects peculiar some respects to itself. But the physiological effects of digitalein and digitoxin are identical with those of digitalin, except that they do not stimulate the vaso-motor centre or the neuromuscular apparatus, and so do not directly raise blood-pressure or slow the heart. In other words, they increase the force of ventricular contraction. The effect of digitonin is to depress the vagus nerves, so it antagonizes the gal effect of the digitalin and prevents digitalis from slowing the heart to the extent that could result from the use of digitalin alone. It also depresses the heart muscle.—HARE
Therapeutic Gazette; August, 1897).

ACTION ON BRAIN AND CORD.—It is now generally held that digitalis, in therapeutic doses, has little effect upon either the brain or the spinal cord, but earlier writers laid great stress upon its "mildly-irritant" properties as regards both, and that as it became cumulative it tended to "confuse the mental faculties." There are some observers who, to this day, ascribe the antithermic action of the drug to an effect upon the cord, whereas it becomes an antipyretic solely by its influence upon the circulation. In pyrexia there is partial vaso-motor paralysis with dilated arterioles, low blood-pressure, and increased tissue change in and around the dilated terminal vessels; consequently by contracting these vessels digitalis raises blood-pressure, it being well understood that, as the latter takes place, the temperature falls, and *vice versa*. In other words, there is always an antagonism between temperature and blood-pressure.

While ordinary doses do not affect the brain, as the drug becomes "cumulative," if it is pushed to a point approaching toxicity, the reflexes of the spinal cord seem to be somewhat lessened. As before shown, under ordinary doses, there is probably some stimulation of the vaso-motor and neuromuscular nerves.

The toxic dose of digitalis primarily inhibits reflex action by stimulation of Setschenow's

centre, and subsequently directly paralyzes the motor tract of the spinal cord. This influence is not, however, very apparent, even in the lower mammals, and in the human being the symptoms of poisoning are chiefly manifested in irritation of the stomach and disturbance of the circulation.—H. C. Wood (*Principles and Practice of Therapeutics*; 1894).

ACTION ON URINARY APPARATUS.—Under certain conditions digitalis seems to increase the flow of urine without altering, in any essential respect, the quantity or proportion of its solid ingredients; but, strange to say, this action is seldom manifested in the healthy human subject, though it is apt to be very pronounced when there is an accumulation of fluid to be removed. In truth, the manifestations of digitalis are often inconsistent and varying as regards renal secretion, and are probably in great measure indirect and secondary. As before intimated, the infusion is the most reliable form to exhibit for such purpose, and doubtless here the watery menstruum should receive a due portion of credit. That the drug is, in any sense, adenagogic or a stimulant to glandular tissue, and consequently diuretic because of such action, receives little credence these days. A fairly free use of alcoholics in connection with the infusion seems to enhance the activity of digitalis as regards the kidneys, but a better method is to combine with the latter a minute portion of cantharides.

It is demonstrated that digitalis diminishes the relative amount of urea in the urine; and that this diminution corresponds with the depression of circulation, and is the corollary of it. The action of this agent as an antiphlogistic is thus explained.—*Gazette Hebdomadaire*; August 12th, 1870.

Digitalis has no pronounced constant effect upon nitrogenous elimination.—ALEXEEXVSKY (*Inaugural Dissertation*; St. Petersburg, 1890).

The drug increases the consumption of the chlorides, sulphates and phosphates.—BELJAKOW (*Schmidt's Jahrbucher*, Band, 219, 1891).

Digitalis increases the amount of solids eliminated in the urine, except urea and uric acid, which are diminished under its use.—BIDDLE (*Materia Medica and Therapeutics*; 1895).

The effect of digitalis upon the kidneys is

very uncertain. Some have found that in health it is a diuretic, and some have not, and the same discrepancy in its action on the kidney exists as regards patients with heart disease, though generally in these cases it is diuretic. The reasons for these discrepancies are that, if the arterial, like the other vessels in the body, be tightly contracted by the drug, very little blood will go to the kidney, and very little urine consequently be secreted; but if the drug does not constrict the renal vessels markedly, the increased cardiac force and the general rise of blood-pressure will send more blood through the kidney and more urine will be secreted. Some state that digitalein and digitoxin have a special effect in relaxing the vessels of the kidney; and, if this is so, the question is still more complicated, for then the diuretic influence of digitalis will depend largely upon the particular preparation which is given. The truth probably is that, with a small dose, or in the first stage of a large one, the vessels of the kidney are contracted and the flow of urine diminished; but the renal arterioles, being the first in the body to suffer from subsequent arterial relaxation, dilate, while the general blood-pressure is still high, and then the drug acts as a powerful diuretic. There is no certain knowledge of the effect of digitalis on the constituents of the urine.—HALE WHITE (*Materia Medica and Therapeutics*; London, 1896).

The generally-received opinion is that, of all the preparations of digitalis, those obtained by maceration possesses the most marked diuretic properties, while digitalein shows the least. This, however, is an error, and in every case the plant possesses properties very variable, according to the country in which it grows; this is shown by the great variation in dosage, and in this way may be explained the harmlessness of the very large doses used in Roumania in the treatment of pneumonia. Further than this, faulty methods of preservation and the substitution in part, of leaves similar in appearance give rise to variations in strength. Thus, some failures which have been attributed to too great degeneration of the myocardium should rather have been laid to faulty methods of collection and preservation. For these reasons the infusion, from a pharmaceutical standpoint, should be considered as an inferior preparation to crystallized digitaline, which is always the same. An important fact, which has not been taken into consideration by those investigating the infusion, is that the leaves contain large quantities of calcium and potassium chlorides. These salts belong to that class of

very diffusible agents which have the power of filtration through animal membranes, which explains their diuretic action.—HUCHARD (*Journal des Practiciens*; No. 48, 1896).

In the general irritation influence upon organic function it may cause a so marked impression upon the kidney circulation as to result in spasm of vessel walls and suspension of renal action.—Suppression of urine with profound albuminaria.—ELLINGWOOD (*Materia Medica, Therapeutics and Pharmacology*: 1900; page 247.)

In medicinal doses the drug is sedative, and secondarily diuretic.—Many affirm that it has no diuretic power, and in health it is known to generally lessen secretion of both solid and fluid constituents of the urine.....It is more than probable that diuresis induced by this drug is had only in those cases in which diminished secretion of urine is due to debility or some other form of cardiac embarrassment; Brunton asserts it is due to special action upon the Malpighian bodies and not to augmented blood pressure alone.—FELTER and LLOYD (*King's American Dispensatory*, 1900; vol. 1 page 655).

ACTION AS AN ANTIPYRETIC.—Why toxic doses cause a fall of temperature, even in health, is one of the physiological problems that yet awaits satisfactory solution; or why with this depressed temperature, muscular paralysis is apt to supervene.

ACTION ON UTERUS.—The muscular substance of the uterus is powerfully contracted by digitalis. It was long supposed that this action was the result of stimulation of uterine ganglia, but it is now believed to be due to the affinity of the drug for unstriped muscular fibre. In uterine haemorrhage, when administered, the patient (usually in about ten minutes) complains of very severe pain in the region of the sacrum, which passes into the hypogastrium and in every respect seems to resemble the pain of the first stage of labor; very shortly afterward a considerable quantity of blood, generally in part coagulated, is forced out from the womb.

In a case of labor three drachms of tincture of digitalis were given by mistake. The drug was retained, there being only a moderate amount of systemic disturbance. A teaspoonful

of fluid extract ergot was given soon afterward. The severity of the after pains, and the apparent antagonistic action of the ergot made the case one of clinical interest.—KOEHLER (*Medical Record*; July 6th, 1895).

In woman digitalis, like ergot, causes contraction of the fibres of the enlarged or gravid uterus thereby arresting hemorrhage.

In men it primarily lessens the supply of blood to the erectile tissues of the penis, preventing and enfeebling erections and consequently diminishing the venereal desires.—FELTER and LLOYD (*King's American Dispensatory*; 1900; 1900; volume 1; page 655).

As digitalis has been employed somewhat extensively and successfully in simple menorrhagia, its affinity for the reproductive apparatus of the female seems well established. It has been employed, in cases where an hysterectomy seemed imperatively demanded, with absolute and phenomenal success. Some authors go so far as to accredit with emmenagogue properties, but the evidence offered is, to say the least, of somewhat hazy character; and yet the drug continues to be employed as an ecbolic and abortifacient in many parts of Europe.

Incompatibles.—The drug and its derivatives are incompatible with solutions embodying salts of iron or of lead: likewise with tannin and tannates. Therapeutically it is antagonized by aconite and the derivatives thereof, by scoparaine, muscarine, saponin, staphisagria and its alkaloid, and by all the belladonna group.

Continued.)

Correspondence.

FROG IN THE STOMACH.

EDITOR DETROIT MEDICAL JOURNAL,

DEAR SIR—The “Lizard Story” which appeared editorially in the October issue of your JOURNAL calls to mind a case of a “said to be mouse” in the stomach.

About twenty-five years ago I attended a Mrs. W.—who was suffering from gastritis with hysteria: The vomiting, nausea, and “gone feeling” in the stomach were persistently present; and finally she conceived the idea there was a mouse in her stomach. She could “feel it creep”

and also “could feel it nibbling her ‘inards.’”

This was in summer time. I visited her one rainy day at which time she was certain sure the mouse was in her stomach. After drying my clothes before an open fire, I deemed it best to administer an emetic, first assuring her that there was “no mouse in that.”

Presently she became nauseated and begged for a drink,—so I gave her warm water of which she imbibed fully a pint. Soon she began vomiting and called me to come to her as she was “going to die, sure.” The house was built of logs, and as I stepped to the bedside, with one hand I lifted the mug and placed it on a chair. When she began to retch I placed my hand on her forehead and (when vomiting began) reached my other hand to the wall, to steady myself in the somewhat awkward position I was obliged to assume, and by so doing disturbed the repose of a good sized tree-frog.

The frog made a leap and landed in the mug just as there was a powerful gush from the stomach. Mrs. W. at once saw the creature and screamed “There it is! There it is!! I told you it was a mouse, but it is a frog; and you knew all the time it was a frog and so gave me a puke to make me throw it up!”

The sequel can well be imagined: I did not deem it either safe or necessary to tell her the facts, or to inform the women present that the frog leaped from the wall into the mug—that the whole affair was an accidental coincidence. To this day the family, and those who were present, believe that Mrs. W. vomited a frog.

Success to the DETROIT MEDICAL JOURNAL. Most sincerely yours,
Utica, Mo., T. R. DICE.
Oct. 29th, 1901.

The Trained Man.—

A man may be brimful and running over with facts and information of every kind, and still be a fool. He is educated, who is so trained in his perceptive faculties, in his analytical powers, and in all his abilities of one kind and another that, put him down in the midst of difficult surroundings, he will be able to see where he is, to understand what the occasion calls for, and be able to master his conditions instead of being overwhelmed by them.—SAVAGE (*Social Science*).

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY •
EPITOME OF PRACTICE AND THERAPEUTICS.

DR. G. ARCHIE STOCKWELL, Editor.

—ISSUED BY—

THE DETROIT MEDICAL JOURNAL CO.,

NOTE.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, at 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., NOVEMBER, 1901.

NEW CLINICAL LABORATORY.

Recognizing a need accruing to a medical centre such as Detroit has become, a number of enterprising and public-spirited medical men, without regard to sectarianism, have united to establish a clinical laboratory that will meet the demand made by constantly advancing medical science. A company has been incorporated under the laws of Michigan which, at an early date will provide an institution fully equipped for special study and examination and scientific research—bacteriological, histological, pathological, chemical, therapeutical and microscopical; even the aids of photography and micro-photography will be utilized.

The Board of Direction and Control has been chosen from among the leading and representative members of the medical profession in Detroit, and the enterprise is free from any affiliation with specific medical organizations. A staff of experts, to have charge of the various departments has been selected.

This innovation, being purely scientific and free from any taint of commercialism, constitutes an enterprise that may well be emulated, and it is to be hoped that ere long every city of metropolitan importance will possess an institution equipped upon parallel or similar lines. The utility and practical benefits to be derived are innumerable, but obvious. No private individual can hope to compete therewith, not alone on account of the

monetary outlay demand, but because of the diverse branches of science involved, each of which requires the co-operation of one or more specially educated and trained observers.

The advantages thus outlined are available to each and every one; a mere nominal fee (\$10.00) secures a single share of stock, and thus opens the door to any and every practitioner.

A TERRIBLE ACCIDENT.

The report comes from St. Louis, Missouri, that a large number of children have been done to death by reason of antitoxin, of local production, administered for the relief of supposed diphtheria. At this writing the number of fatalities is placed at *eleven*, with many more to be expected.

The immediate cause of this wholesale series of accidents is claimed to be an artificially induced tetanus derived from the serum of a horse infected with the disease. According to the admission of the bacteriologist, the last serum taken from the equine was had on September 24th, when no evidence of disease was manifest; yet a week latter the creature gave such unequivocal evidence of tetanus that it was obliged to be killed.

Two lessons are to be drawn from the foregoing:

First.—The dangers of municipal production of medicaments intended for free distribution since, notoriously, the majority of municipalities—at least those of sufficient size and wealth to permit of indulgence in the luxury of a so-called physiological laboratory—are governed by “rings,” and all offices of executive character farmed out in consonance with political “pull” or party affiliations and patronage, with but a shadow of regard for professional standing, skill or ability:

Second.—The fact seems not to be known that of all creatures the horse is most liable to tetanus, and less likely to manifest def-

inite evidences of infection during the incubative stage.

It goes without saying then, that municipal production of serums, *et id genus omnes*, should be discouraged and frowned upon: Life is too valuable to be juggled with in the interests of politics.—It is only a few years since it was discovered that a large proportion of the vaccine points, provided by a certain city for the purpose of carrying out a house-to-house vaccination during a small-pox scare, were tipped, not with bovine vaccine-lymph, but with *croton oil*. It is certain that no such accident as is reported from St. Louis could have obtained in the laboratory of any reputable private firm.

Under the circumstances, then, it would seem that experiment should be made with other than equine serums for the manufacture of antitoxin, and in consonance therewith, some creature selected that is less liable to tetanus infection than the horse.—The goat, for instance, which has already been proved a reliable animal for the purpose, and is known to be in a great measure immune to tetanic poison.

The wonder is, not that the accident has happened, but that it has not taken place before, considering how widely antitoxin is employed and the constancy with which it is advertised as an absolute and certain specific for diphtheria.

It is now announced that the city of St. Louis will retire from the manufacture of antitoxin.

THE GLYCERO-PHOSPHATES AND FERRO-MANGANATES.*

These preparations, *per se*, appeal forcibly to the medical profession because of their supposed ready assimilability. The use of glycero-phosphates is by no means a new idea, nor is that of the combination of iron and manganese.—The one dates from 1888, and the other from 1852, respectively.

*Copyrighted.

The introduction of the first of these preparations was due to the fact that the combination was deemed physiological, and also from the general acceptation of the idea that all phosphates, or phosphorous compounds, to be of therapeutic utility must be transformed within the economy into a glycero-phosphate, because the latter constitutes the essential component of *Lecithin*; and lecithin is recognized as playing an important rôle in the nutrition of nerve tissue.—As a matter of fact this substance is nothing more or less than a glycero-phosphate of neurine.

Lime and soda as normal constituents of the general tissue, on theoretical grounds, have been selected as offering the acme of physiological opportunity for the introduction of glycero-phosphates into the economy and likewise as assuring ready assimilation. Thus, glycero-phosphate of soda and lime are accepted not only as powerful, but among the most certain of therapeutic agents for strictly up-building nerve tissue; they are claimed to be to the nervous system what iron and manganese are supposed to be to the circulatory apparatus.

The action of iron is too well known to require elucidation, yet the salts thereof sometimes fail the practitioner, usually at a most critical moment, and for no appreciable cause.—In chlorosis for instance; in the anaemia arising from cancer and tubercle; during prolonged and profuse suppuration as in septicæmia, pyæmia, etc. Inasmuch as iron, in Nature, is found almost constantly associated with manganese, and separated from it only with the greatest difficulty, and as in most cases where the ferrous salts are indicated, iron does not appear wholly or even dangerously deficient, it was deemed probable that some other agent was lacking in the circulation, and consequently, for analogical reasons, attention was turned to manganese; and this supposition, in 1852, was corroborated clinically by Petrequin

who successfully treated cases of anæmia, (that had wholly resisted the action of the ferrous salts) by means of a combination of iron and manganese. Subsequently, it was definitely demonstrated that each metal is, physiologically essential and complimentary to the other.

Again, of late years the iron salts have fallen greatly in disrepute because of the definite statement (as a result of laboratory investigation merely) that these medicaments ingested by the stomach could be, wholly (or practically so) recovered from the faeces. The parallel, however, is not true of manganese as very little of the mineral is ever found in the excretæ; while the combination of iron and manganese can be recovered only in considerable less quantities and proportions than either of these elements separately—thus justifying the presumption that their unity in Nature is also essential to their medicinal activity within the economy.

With a view to furthering the assimilation of the two metals, recently they have been employed as peptonates, a form that is supposed to insure easy and ready absorption of the basic ingredients on account of the pre-digested form of the peptone, which in turn is a product of the action of a digestive ferment upon some form of albuminoid—(egg-albumen, fibrin, or casein); but this, excepting in so far as it may favor pharmaceutical conveniences, offers no real advantages. It may here be remarked that a good preparation of this class should offer not less than twenty to twenty-five per cent. of glycero-phosphate (lime and soda) nor less than one per cent. of iron and manganese.

The combination, theoretically at least, has a wide therapeutic range, and its applicability may be reasonably extended.

Nervous Maladies.—When there is exhaustion of nerve force, more or less general in character, such as supervenes upon protracted or continued fevers, malignant

diseases, etc., the value of glycero-phosphate of lime and soda in conjunction with iron and manganese is considerable. There is not alone the tonic effects that are secured to the nervous and circulatory systems, whereby is obtained an absolute tissue regeneration, but also an alterative secernt action.

In the insomnias of nervous prostration and cerebral anæmia the effects are well exemplified, leading to speedy relief; also in the headaches of nervous exhaustion, such as follow mental strain, brain fag, overwork, insolation ("sun-stroke"), etc.,—often occipital in character and tending to temporary dementia. In the intercostal neuralgias of the debilitated, and long-standing, obstinate, forms that frequently seize upon the aged; in the degenerative nerve-changes due to senility; in mental failure and aberration; in paralysis agitans,—in all these when arising from imperfect nutrition or degenerative metabolism, these remedies, singly or in combination, are most effective. Though not true analgesics, in the general acceptance of the term, these agents (especially in combination) often quiet and relieve the suffering due to neuralgic and rheumatic attacks, and especially the cephalalgias that accompany the latter, exemplifying the maxim of Rokitansky that "pain is but the cry of the nerves for good blood," and that it is subdued by providing the element lacking. In like manner the remedy is often effectual in the debility arising from acute and chronic morphinism, alcoholism, cocaineism, and poisons of this ilk, but in no sense curative of these conditions *per se*.

Doctor Broadbent, before the Clinical Society (London), announced that several cases of chorea under his charge were materially benefited by the medicament. It has also been found of occasional utility in epilepsy, especially the form that develops through sexual excesses; but in the main it is ineffectual in this form of

neurosis. So, too, it has been employed with remarkable success for the relief of similar ravages provoked by undue indulgence in venery, in onanism, and for functional impotence.

In paralysis of spinal origin but functional in character, it is far superior to nux and strychnine preparations, though these will always possess an adjunctive value; so, too, it checks the progress of locomotor-ataxia and relieves the "lightning pains," opposing this malady (*vide* the maxim of Rokitansky), merely by its tendency to inhibit waste, since it does not in any sense repair; the effect is, simply, giving of tone to the circulatory and nervous systems at large and as a whole, without direct influence upon the specific lesion except in the line of retardation. Yet in all forms of paralysis, when inflammation is present, the medicament—like any other tonic—is contra-indicated.

Osseous System.—In painful conditions of the periosteum attended by subacute inflammation it is markedly beneficial.—Manganese, *per se* has a great affinity for periosteal tissue, and by its combination with iron and glycero-phosphates this tendency is enhanced (for obvious physiological reasons), at the same time repair and healthy growth is stimulated. Here, inasmuch as it is employed as a restorative, a continuous effect is demanded, hence the advisability of small doses, frequently repeated and not too greatly diluted.

In carious and necrosed conditions, it acts not only as a tonic and tissue-builder but (by reason of the stimulant action upon the periosteum) separation of *sequestræ* are hastened and replaced by new tissue.—Marcacci enumerates thirteen cases in which unequivocal results were obtained. It also appears to promote and hasten the absorption and resolution of adventitious osseous tissue, such as bone tumors, and even the plastic material thrown out to facilitate the repair

of fracture, once such has served its purpose.

Anæmia and Chlorosis.—Cases of extreme chlorosis, due to phthisical or scrofulous diathesis, in chloro-anæmia following upon menorrhagia and other haemorrhages, upon operations such as removal of polypi, etc.,—indeed all disorders of the circulation associated with deficient haemoglobin, and that are so frequently mistaken for organic disease,—are readily benefited. It must be said, however, that it is apt to prove futile in the chlorosis that supervenes upon cancer, tubercle, pyæmia and septicæmia, until combined with digitalis, when it becomes immediately active; this latter fact is also true of the pernicious form of anæmia when the combination with fox-glove frequently places the medicament far in advance of the arsenical preparations. It is remarkable in its effects upon the chlorosis of young girls just entering womanhood, and also upon the form that develops in newly pubescent males—this latter a malady far more common than is generally supposed.

Cardiac Maladies.—Odier employed in cardalgia with unqualified success; in affections of the heart generally, whether functional or organic, it is best administered in minimum or small doses, oft repeated, since large tend (for some unexplained cause) to depress action and lower blood-pressure.—Probably for the same reason that when ingested directly into the blood current it tends to paralyze voluntary motion and reflex action, and to arrest the heart in diastole.

Renal Affections.—In kidney maladies it is oftentimes effective simply by means of its tonic action, manifested alike upon the circulatory, the nervous, and the vascular systems; hence the happy results that often obtain to its exhibition in chronic renal irritation, in diabetes, in nephritis when accompanied by atony and milky secretion, and in dropsy resultant upon

renal insufficiency. It also relieves vesical and prostatic irritability, especially when due to sexual causes; is in fact sedative and tonic to the entire genito-urinary tract, and slightly increases the flow of urine,—facts that deserve to be especially borne in mind when prescribing. As it is directly restorative to the nervous, circulatory and vascular systems, it is the remedy *per excellence* in the debility of functional impotence.

Pulmonary Diseases.—In lung maladies generally, as well as irremediable cachexias, the combination is without peer or rival, hence its value in phthisis as a restorative, alterative and sedative. It is a true tissue-regenerator, and in this respect is in no way inferior to iodine, cod-liver oil and barium, and an agent of great power where heptization exists; hence of great utility in certain stages of pneumonia, and it is not to be gauged by any other single remedy, or combination of remedies, in the debility that follows the typhoid type. It readily overcomes profound pulmonary engorgement regardless of ætiology; also is effective in chronic bronchitis with bloody or muco-purulent expectoration, and in chronic laryngitis characterized by marked dryness and sense of heat in the throat, especially if the latter is associated—as is commonly the fact—with nervous depression. It mitigates the excessive prostration, feeble pulse, pasty tongue, impaired appetite and digestion in chronic pleurisy, and the hacking cough and diarrhoea of early phthisis—is, in fact, indicated whenever there is destruction of lung tissue. Likewise is of general utility in dyspnœa, regardless of cause.

Diseases of Women.—It is particularly advantageous in the weakness that supervenes upon child-bed; and is (usually) of benefit at the critical period known as the menopause; likewise very effectual in establishing the menstrual flow in amenorrhœa, including that form which has its

origin in sea-sickness. In the many forms of dysmenorrhœa—not dependent upon mechanical causes—it is distinctly remedial, and for like reasons, of the utmost value in securing the comfort of those suffering from uterine cancer and leucorrhœic diabetes.

Gout and Rheumatism.—Here the combination is a valuable adjunct to other medicaments, though rarely of direct remedial importance (except, perhaps, in gouty dyspepsia and rheumatic conjunctivities) despite the fact it has a slight tendency to combine with uric acid to form soluble urates; but, as just intimated, it is a valuable factor in enhancing and fortifying other medicaments that, within the economy, exert this chemical action with greater certainty and much more satisfactorily.

Hepatic Maladies.—As manganese is a normal constituent of the bile, the preparation oftentimes proves effectual in combating malignant jaundice of malarial origin, by reason of a secernment action; this also should not be overlooked, in the management of convalescence after fevers.

Febrile Maladies.—Though it has been suggested for the treatment of this class of diseases, and certainly is of the utmost utility in certain stages of typhus, typhoid, typhoid-remittent and bilious-remittent, the fact should be remembered that its chief value lies solely in its tonic-secernent action, and that tonics, far from being of benefit in this class of maladies, are apt to be pernicious if exhibited prior to crisis, except, perhaps, for a trifling increase of appetite and improvement of the conditions of the stomach; but it may be readily resorted to after the period of final crisis with confidence. As a medicament in intermittents, the combination, in the majority of instances, is practically worthless except (as already intimated) as an appetizer.

Scrofulus Diathesis and Specific Maladies.—The indications that point out the

value of the remedy in other cases of debility, likewise command its employment in scrofulosis and all maladies dependent upon impoverished and deficient circulation. No remedy extant is so satisfactory in scurvy—even cases of constitutional syphilis have been speedily cured thereby,—and it certainly is a valuable adjunct to remedies possessed of more specific and alterative activity; So, too, it often affords material satisfaction when exhibited in certain skin maladies, notably, herpes, scabies, psoriasis, excema, etc.

Eye Diseases.—In eye maladies, too, of a certain class, its benefits are very marked, especially in conjunctivitis of strumous origin, more particularly where the disease has, for a long time, resisted every other form of treatment; likewise in corneal ulcerations, and the intermittent forms of ophthalmia that arise from scrofulous diathesis.

The Digestive Apparatus.—Best of all are the effects manifested upon the digestive apparatus. It is not only a pleasant aromatic preparation, but alike agreeable to the palate and stomach. It is an almost panacea for acute dyspepsia, a form of malady that invariably improves under its use, even if it has continually resisted the action of the entire gamut of digestive-ferments. In the various neuroses of the digestive organs which complicate the chlorotic state, it is unequalled and unexcelled; so also in the dyspepsias of gastralgia and gastro-enteritis; in all forms of dyspepsia accompanied by flatulence, or pyrosis; in simple ulcer, etc.—Here small doses, frequently repeated, may not only prove desirable, but will most effectually control existing irritation. There is no medicament that will so effectually relieve the sufferings induced by gastric ulcer, or that is so prompt in inhibiting nausea or vomiting that has resisted all other remedies. It is, alone, an excellent remedy for ulcer of the duodenum.

JOHIMBINE.

This alkaloid was first isolated by Spiegel from the bark of jambehou tree, native to South Africa. The infusion of the bark is particularly accredited with aphrodisiac action which also extends to alkaloid johimbine.

This alkaloid exerts a paralyzing effect, at first upon the cerebrum, then upon the respiratory centres, and finally on the spinal cord; the heart's action ceases owing to paralysis of the cardiac ganglia, this being followed by paralysis of the cardiac muscle. The general paralysis is preceded by a brief period of excitement.

The drug markedly lowers temperature, owing to the paralysis of the vaso-motors, whereby is induced increased radiation; also owing to this vaso-motor effect, the penis becomes greatly over-filled with blood, and this engorgement may lead to occasional erections; the latter, however, are not brought about by stimulation of the sexual centers.

Temperature and Sound.—

Any noise not sufficiently loud to arouse a heavy sleeper is said to have an appreciable effect upon head temperature.

We should very much like to have this statement demonstrated.

Gout.—

This malady still continues to afflict one-twelfth of the population of Great Britain, despite the fact the "good old port-wine drinking days" have become fairly obsolete and little more than a tradition.

Paper, New Source of.—

In France a new process has been introduced whereby paper is manufactured from kelp and other sea-weeds. The product is said to rival glass in transparency, and threatens to usurp the place of the latter in the construction of dwellings.

Book Reviews.

A Treatise on the Acute Infectious Exanthemata. By William Thomas Corlett, M.D., L.R.C.P. (London). Fully illustrated. Cloth, 8 vo.; pp. 392. Price, \$4.00. The F. A. Davis Co. Philadelphia, 1901.

This work supplies a hiatus that has existed for many years in one branch of medical literature. The difficulties and discomforts that are encountered by the young practitioner, and that, also, not infrequently, overtake those of more mature years and experiences, are innumerable, both as to diagnosis and management of the more common infectious diseases. The opportunities for instruction in hospitals, infirmaries, and at the bedside, are few and far between, and moreover accompanied by dangers, alike of infection to the individual and to those with whom he associates. This volume in considerable measure overcomes this lack of instruction—as fully as it is possible for a text book to do; to this end it is very accurately illustrated by means of photographs taken at the bedside, and by colored plates. The diseases treated are: Small-Pox: Vaccine Eruptions or Cow-Pox: Chicken-Pox: Scarlet Fever: Measles, and: Rötheln.

We most heartily endorse the above work for its very complete character, the excellence of its teachings, and the clearness and fidelity of its illustrations.

The Youths Companion. Price \$1.75 per year. Peny Mason and Co., Boston.

For three-quarters of a Century The Companion has been published every week as a family paper. In these seventy-five years the paper's constancy to a high standard has won the confidence of the American people. It has kept pace with the growth of the country. Its stories, its special articles, its editorials, its selections represent all that is best in American life. For 1902 the foremost men and women of the English-speaking world have been enlisted as contributors. The work of an unprecedented number of new and promising writers has also been secured. Thus the constantly increasing demand for the best reading suited to all members of the intelligent American household will be fully met.

A twenty-eight-page Prospectus of the 1902 volume and sample copies of the paper will be sent free to any address. Those who subscribe at once, will receive all the issues for the remaining weeks of 1901 free from the time of subscription; also The Companion Calendar for 1902, lithographed in twelve colors and gold.

SPIRAL PLACENTA CURRETTE.

We herewith present an illustration of a new form of currette for which several advantages are claimed:

It can be introduced through a very small dilated cervix:

Will easily separate, from the uterine walls, the placenta which will then act as a tampon to check haemorrhage:

By a slight turn of the stem and handle, and employing the ordinary motion which accrues to the use of this form of appliance, every portion of adherent placenta may be removed.

Theoretically, at least, this is a desirable instrument in miscarriage where there is retention of placenta tissue.

PAT.FEB.12.1901.



AN INSTRUMENT ROLL.

This new device promises to supplant the amputating and general operating case; it also may serve the purposes of the gynaecologist and obstetrician. It is provided with forty-two loops adaptable to instruments of all sizes and lengths, up to sixteen inches; at the same time they are prevented from coming in contact with one another.

THE HARTZ RHEOSTAT.

This is a device to be employed with the 110 or 120-volt "direct," or the 50 or 104-volt "alternating," electric current. It reduces the volume of the current so as to give a small lamp of four candle-power a perfectly pure white light—a light nearly double in strength than that of any small battery-lamp extant. It can be utilized to illuminate the frontal sinus and to examine either the throat, nose or ear.

VACCINATION INSTRUMENT STERILIZER.

This is made in the shape of a hinged pocket case (2 x 3½ inches), one half being an alcohol lamp with folding supports for the sterilizer, the other half consisting of the sterilizer pan, along with a removable rack holding scarifiers and tweezers; there is also space provided for bottles containing vaccine-virus tubes.

To prepare the sterilizer for use it is only necessary to pull out the pin of the hinge, separate the two halves of the case, turn up the supports, and unscrew the cap of the alcohol lamp; then to place the sterilizing pan, partly filled with water, on the supports and light the wick.

Items and News.

Fatigue.—

The blood of the tired animal is poisoned, and when injected into another animal causes the phenomenon of fatigue.—
SIR MICHAEL FOSTER.

Skin Diseases, Diagnosis of.—

Psoriasis is usually situated on extensor surfaces, while eczema, like syphilitic eruptions, usually appears on flexor surfaces.

Disinfectant, An Effective.—

Hydrocyanic acid is a reliable agent for house disinfection; it is also especially serviceable in maritime disinfection, and very effective against certain infectious diseases,—either when used alone or in combination with other gaseous germicides.—FULTON.

Medical Education in United States.—

Chicago with its fourteen medical schools possesses five more than the whole of Russia, or as many as Austria, Switzerland and Denmark combined. St. Louis is not to be out done with her eight schools; Baltimore and Cincinnati possess six schools each.—ROVINSKY (*Medical News*).

Bad Teeth a Factor in Disease.—

Thousands of people are possessed of rotten teeth, carrying with them so many small cesspools in mouths filled with foetid abominations of stinking food-debris with a teeming population of micro-organisms, and the resultant toxines as concomitant, and daily swallowing these putrefactions and absorbing the pus.—LEESOWN (*New York Medical Journal*).

Theory vs. Practice.—

Not a few people who have glanced at the published photographs of the interior of Brantwood have an uneasy consciousness that, unless the camera prevaricated, Ruskin's taste in domestic decoration would do little credit even to one of the despised race of the Philistines. Apparently the gloomy truth can no longer be concealed. A writer, who visited Brantwood shortly before Ruskin's death, denominates the dwelling "The Unæsthetic House of an Æsthete."—*Daily Chronicle* (London.)

Sterilized Milk.—

Boiled milk requires much more digestive effort than does unboiled, as in the latter the serum-albumen and nucleated cells are absorbed directly by osmosis without chemical change. Milk may be warmed to 160° Fahr. without interfering with its digestibility by coagulation of the cell- and serum-albumen.—*Providence Medical Journal*.

The Specialist.—

A physician should spend several years in general practice before adopting a specialty. Specialism has done many good things for medicine; but practitioners should see to it that it is not overdone. If a physician wishes to acquire a broad general culture, it can come only from general practice. The selection of a specialty should, like matrimony, come naturally and without being forced.—MOYER.

A Suggestion.—

There should be established a *Materia Medica censor*, whose duty it shall be to decide as to the therapeutic value and the ethical character of all (and especially new), drugs and combinations of drugs, offered to the medical profession, as well as a host of allied substances, such as glandular extracts, artificial foods, food-substitutes, and the like.—*Red Cross Notes*.

[All of which is very good, if it could be carried out, and the right censor appointed. But in these days, "too much politics" is the rule, and the remedy might prove worse than the disease.—Ed.]

Olive Oil and the Plague.—

Professor J. P. O'Reilly sends some extracts from a work on Morocco* containing an account of the use of olive oil as a remedy for a form of plague which depopulated West Barbary in 1799-1800. The oil was used to anoint the skin, either before or after infection. Professor O'Reilly points out that the ordinary olive oil of the Levant and of Spain is not the pure clarified oil we know of in this country, but a green and generally more or less rancid oil produced in a coarse way from all sorts of fruit, unsound as well as sound.—*Nature*.

*"An Account of the Empire of Morocco," by James Grey Jackson, 1814.

Therapeutic Brevities.

Typhoid Fever.—Begin treatment by administering saline purgatives—Epsom salt by preference, in dose of two drachms every hour,—until large evacuations are procured. If the tongue remains coated and the abdomen tympanitic and painful, and if the disease has not yet passed the first week, persist in purgative treatment for at least two consecutive days.

If there are no marked and grave nervous symptoms, if the bronchitis is moderate and the fever does not go beyond 103° Fahr. in the evening exacerbations, keep the patient on slightly acid and refrigerant drinks, and increase the action of the skin by combining with the acetate of ammonia. If the temperature is very high (over 104°), have recourse to bathing two or three times a day with alcohol and water, or aromatic vinegar; make use also of calomel in fractional doses and employ ice-caps and blisters to the extremities.

Only at the end of the first week—particularly during the second, when the adynamia has become preponderant, associated as it most always is, with ataxia,—is it desirable to resort to tonic treatment on a large scale. As soon as the ataxic symptoms appear, prescribe ammoniacal preparations, ether, musk, valerian, henbane; or, by enema, camphor, asafoetida or castor.

As soon as cerebral symptoms appear, apply blisters to the lower extremities. This practice, which is not generally accepted, I have followed with the greatest benefit; under the revulsive action of these agents the delirium, coma, restlessness, insomnia, tremor of the extremities, etc., diminish in intensity and often disappear.

Coffee, administered in small and repeated doses, is a powerful resource in the treatment of this fever after the end of the first week.—HOMEM.

Chlorosis, Chronic.—The following will be found most serviceable:

Iron perchloride, tinct. 10 minimis
Ether sulphuric, spirit 10 minimis
Nux Vomica, tincture... 10 minimis
Quassia, tincture..... 12 drachms

To be taken an hour before luncheon, and again before dinner.

—MALCOLM MORRIS.

Hernia, Injection Treatment of.—This method of procedure is so simple that any one can, with ordinary care, perform the operation. The objects gained are manifold, the principal of which are:

The patient's horror of an operation is avoided:

He is not confined to bed:

Comparative absence of danger:

The same result is obtained as by use of the knife (viz., complete obliteration of the canal) and by virtually the same means,—local inflammation and deposit of plastic material.

The method of procedure is to remove the hair on the affected side, then carefully cleanse the part with soap and water. Carefully insert the index finger into the canal, taking pains to push back into the cavity the contents (if any); then insert the hypodermic needle, directly into the canal and at right angles to it, beyond the tip of the finger, where it can be felt and the needle guided.—This is the most important step of all since, if the fluid be thrown into the tissue surrounding the canal and not into it, inflammation will result but not where it is demanded.—This is the principal reason why this method is so little employed. Having the needle in the canal where it can be felt by the finger, five to ten drops of the following fluid is gently forced in:

Zinc sulphate.....	1 drachm
Alcohol	8 drachms
Carbolic acid.....	2 drachms
Water, to make.....	4 ounces

The finger is now withdrawn and the parts gently kneaded,—as after an ordinary injection. The patient will complain of some pain for a few days, but this is not usually severe.—FEID (*Cincinnati Lancet-Clinic*).

Sea-Sickness.—Doctor James Wortobet has traveled more than 100,000 nautical miles, and usually had under his care several hundred passengers (besides the crew); he therefore speaks from experience when he says that although there may be certain cases of sea-sickness that are of cerebral origin, such are in the minority, and that in the majority the symptoms start from the abdomen. People who are well inured to sea life and are usually quite free from sickness, may

till suffer if they go to sea with loaded bowels, and he is quite sure that by the precaution often taken by experienced travelers in this direction they are protected: This precaution consists of a purgative a day or so before sailing, adopting the recumbent posture, and avoiding oleaginous smells and the company of those who are sea-sick. It is strongly advised that those who habitually suffer from gastric phenomena provide themselves with a flannel bandage, twelve feet long and six inches broad, and wind it round the trunk over the whole width of the abdominal region; this will afford great comfort by preventing the contents of the abdominal viscera from undue movements. Also that for severe retching and persistent sickness nothing is so trustworthy as a hypodermic injection of morphine.—*The Hospital* (London).

Anal Fissure and Fistula.—These conditions are frequently, if not usually, caused by constipation, hence the necessity of regulating the bowels and relieving congestion of the portal veins. For this purpose give a teaspoonful, in water, before meals, of:

Sodium salicylate.....	2 drachms
Nux vomica, tinct.....	4 drachms
Alterative ext., fluid..	20 drachms

Also apply locally, by means of absorbent cotton, a solution of silver nitrate, ten grains to the ounce, every second day; or chloral hydrate (twenty grains to the ounce) if the fissure is covered with pale, flabby granulations. If these measures fail to stimulate healthy growth, and especially if the edges are hard and thick, pure tincture of iodine may be cautiously applied.—*Medical Summary*.

* * *

In young children fistula may always be regarded as of a tuberculous nature, therefore must not be subjected to a cutting operation without first determining the fact that one has not to do with a spinal abscess that has found an outlet in the ischio-rectal fossa. In these cases a soft probe penetrates very deeply, the child has a stiff or curved back, or shows symptoms of disease of the sacro-iliac synchondrosis.—*International Journal of Surgery*.

Arterio-Sclerosis, The Iodides in.—Sodium and potassium iodide have been used in arterio-sclerosis, excluding those cases accompanied by pronounced cardiac weakness and albuminuria. From fifteen to thirty grains of the first named salt may be given daily in divided doses, in milk or Seltzer water, and after a time followed by potassium iodide in the form of an effervescent salt. The effect is marked in cases accompanied by cardiac distress, particularly angina pectoris.—It seems to be of little consequence whether the arterio-sclerosis is of syphilitic origin or not. Probably the *modus operandi* is, that the morbid process in the blood-vessels is brought to a standstill so that the high blood-pressure is gradually lowered and, therefore, the normal circulating function re-established, at least for a time. While this treatment checks vascular changes, there is no evidence that it restores the tissues to their normal condition.—VIERORDT.

Chloroform as a Medicament.—This drug is valuable (employed externally, in liniments), in cases of muscular rheumatism, and for stiffness of muscles due to strain or excessive exercise. Another use to which it is too rarely put is, for the production of counter-irritation: Slight reddening is rapidly induced by a cloth saturated with chloroform applied to the integument, care being taken that it is so remote from the respiratory apparatus as to avoid inhalation of any large quantity,—even vesication may be obtained by placing a few drops on the skin under a watch glass so that too rapid evaporation will not take place. For those who are unable to take opium in any combination, for the relief of pain, a mixture of thirty drops spirit of chloroform and ten minimis of a reliable fluid extract cannabis Indica will prove effective.—*Therapeutic Gazette*.

Neuralgia and Influenza.—

Salicylic acid.....	2 drachms
Turpentine oil.....	2 drachms
Belladonna extract....	4 grains
Vaseline	4 drachms
Lanoline	4 drachms

Rub a large quantity of the ointment into the affected part, which is then wrapped in cotton; this two or three times daily.—CAPITAN.

Whooping-Cough.—A boy, aged nine years, was suffering from a severe attack of whooping-cough. The nose of the patient was irrigated with one to forty solution of carbolic acid; ten to twenty ounces of the solution were passed through the nose three times a day. At first, it caused a good deal of sneezing and coughing and the ejection of a considerable amount of gelatinous mucus, some of which was greenish in color, but after the operation had been performed a few times there was less discomfort and the patient looked forward to the injection as bringing relief from his suffering. The cure was complete in about a week, but the treatment was continued a few days longer in order to prevent the recurrence.—PAYNE (*British Medical Journal*).

Heart, Palpitation of.—The various diseases that are accompanied by this symptom, (incipient acute aortitis, acute endocarditis, acute pericarditis, adhesions of the pericardium, and mitral stenosis or insufficiency) are benefited by digitalis or its substitutes. The following is excellent:

Quinine muriate.....	60 grains
Digitalis, powdered.....	30 grains
Convallaria extract.....	30 grains

Make forty pills of which two or four may be taken daily.

—HUCHARD (*Archives de Médecine et de Pharmacie Militaires*).

Alcohol, Subcutaneously.—A small amount of alcohol should be employed in normal saline solutions, in cases where a direct cardiac stimulant is required. The salt solution containing whisky is more prompt and certain in its results than the plain physiologic salt solution. The pulse was distinctly reduced in rate and increased in force by the use of the combination in a case of serious toxæmic and fulminating appendicitis. I suggest it as worthy of a further trial.—EASTMAN.

Obesity.—Sponging the body twice daily with a one to sixteen solution of magnesium sulphate, at the same time administering a teaspoonful every six hours, of the same remedy internally, will reduce obesity rapidly.

Applied to a cicatrix the solution will remove the scar.—BRODNAX.

Goitre.—Fourteen cases, ten females and four males, were treated by thyrodeotomy with only one fatality, and this occurred on the fifth day from softening of the trachea which tracheotomy failed to relieve. The patient should be prepared for the operation by a long course of iodoform administered internally in the form of pills.—Never operate without this, unless the symptoms are very urgent.

Enucleation is the best method, and preference is given to the single median incision. It is very necessary to prevent the loss of blood by the lavish use of forceps, but it is not essential to wash out the sac with antiseptics.—REVERDIN (*Le Progrès Médical*).

Gravel-Plant.—The action of *Epigaea repens* is similar to that of *uva ursi* and buchu, but it gives far better results. In cystitis employ twenty to thirty drops of fluid extract, every three hours, until a positive effect is produced. In chronic muco-cystitis it is extremely valuable and may be alternated, or given with fluid extract *Rhus aromatica*, twenty drops every three hours. It is also to be recommended in suppression of urine, inflammation of the urethra, and where there are deposits of oxalates.

It acts promptly in diabetes mellitus when alternated with rhus; likewise is useful in chronic Bright's disease.—ROTHROCK (*Wisconsin Medical Recorder*).

Cactus Grandiflorus.—The fluid extract, in doses of from five to ten drops three times a day, is an excellent heart stimulant and substitute for digitalis. It does not prolong diastole as does the latter, and on this account is of value in diastolic murmurs. It is also valuable in functional disorders of the heart connected with neurasthenia, anæmia, exophthalmic goitre, tobacco habit, etc.—HERWISCH (*Philadelphia Polyclinic*).

Asthma.—Use either belladonna or lobelia. The reason why these drugs have not a greater reputation in this malady is, that they are not given in sufficiently large doses. Either must be administered in quantities sufficient to produce the physiological effects.—SALTER (*The Lancet*, London).

Santonin, Poisoning by.—A fatal case occurred in an infant eleven months old. The principal symptoms were: Great abdominal tenderness, especially in the right iliac region,—pressure here producing convulsive movements of the extremities; respiration shallow and rapid; golden-yellow stools and urine,—the latter first increased and then suppressed; profuse alivation; progressive rise of temperature and feebleness of pulse; jaundice; prolonged stupor.—TAYLOR (*Medical Record*).

Atropine in Eye Diseases.—In no case of questionable diagnosis, in persons over forty, should this drug be employed:

In every instance, while using, except in threatened perforating ulcers, the tension of the eye should be taken daily:

In all, where it is necessary to use for several weeks, an occasional instillation of eserine is a good safeguard:

That numerous cases of glaucoma are caused by the injudicious use of atropine there can be no doubt.—*Archives of Ophthalmology*.

Eczema and Alcohol.—A man who had been in the habit of taking stimulants every day for a number of years, (though never in excess), was suddenly laid up with an attack of eczema. When the alcohol was stopped, under simple treatment he got well. When he went back to his old habit he had a second attack of eczema. It was then suggested that he leave off alcoholic beverages altogether. He did so, and has not had eczema since.—*Brooklyn Medical Journal*.

Amyl Salicylate.—This is an excellent substitute for methyl salicylate, being fully as active, lacking the disagreeable odor, and is no more irritating. Fifteen to thirty minims may be painted over the rheumatic joint, which is then covered with a sheet of rubber, and a rapid diminution of pain and swelling follows. The results of administration by the mouth have been equally as satisfactory as those due to local application.—LYONET (*La Médecine Moderne*).

Ozæna.—If the nasal bones are sore to the touch and the discharge foetid, berberis will do good.—BLOYER.

Erigeron Oil.—This is an excellent haemostatic or styptic for internal administration, its action being very like that of turpentine, which it will replace to advantage in many instances. It is sometimes of use in gleet, though not superior to copaiba or santal oil. Its most useful field would appear to be uterine haemorrhages, metrorrhagias, and menorrhagias. The dose is five to ten minims, dropped on sugar, or made into an emulsion.—*St. Louis Clinique*.

American Bitter-Cup.—Cups are turned from *Carissa Xilopieron*, which, when filled with water or wine, after a time impart thereto a bitter flavor, when the liquid becomes febrifuge, stomachic, and vermifuge. In the Mauritius, where the plant is known by the name of "bitter-wood," it is used as a tonic, diuretic, and febrifuge. The fluid extract is administered in intermittent fever as an auxiliary to quinine.—*Fortschritte der Medicin*.

Epsom Salts, How to Give.—Use just enough water to dissolve the salts completely. First drink two large swallows of water, then take the salts quickly; follow with the remainder of the water in the glass. In this way you will not taste the salts.—PUTNAM (*American Medicine*).

[Hot water is preferable to cold or luke-warm, both as to activity and palatability.
—Ed.]

Pulmonary Gangrene.—Give inhalation of solution of mercury bichloride three times daily, employing twenty cubic centimetres at each sitting. The solution should be of the strength of five centigrammes to 1,000 grammes of water.—KORAZY (*L'Union Medical*).

Painful Hypodermatics.—The pain induced by the prick of the hypodermatic needle may usually be obviated by touching the point of insertion with carbolic acid, chemically pure.—*Medical World*.

Nasal Haemorrhage.—If the patient is plethoric use bryonia. If it occurs only in the morning try sepia.—MOHER.

When all else fails employ camphor.—HOLBEN (*Homœopathic Envoy*).

Strabismus.—During the boyhood of a gentleman, now aged thirty, and who presents a perfectly natural appearance, I employed a gentle Faradic current, under which the eye ball became straight. The application was prolonged for a full hour at each session, and repeated on many occasions.

The reason that electricity has not gained ground in the treatment of squint is, the slowness of its action, or rather, the necessity for its frequent repetition. It is, however, scientific, painless, simple, and properly carried out, effective.—RICHARDSON (*The Asclepiad*).

Rectal Feeding in Peptic Ulcer.—Nutritive injection of peptonized food is a valuable method in gastric ulcer. The tube must be inserted beyond the sigmoid flexure if possible (at least eight or twelve inches inside the rectum), and the fluid injected slowly. Efforts at expulsion are prevented by a pad, and the enema should be repeated every six hours. It is not claimed that all the necessary nourishment can be furnished this way, but the improvement of the patient by this method is encouraging.—SEARS.

Staphisagria.—This drug influences the nervous system, the bladder and the kidneys, lessening irritation and strengthening function. It is excellent for prostatorrhœa, nocturnal emissions, simple urethritis or gonorrhœa; it checks the discharge, strengthens the seminal vesicles and testes, and overcomes enlargement of the prostate. Meanwhile saw palmetto adds tone to the vesical muscular-fiber.—BLOYER (*Medical Gleaner*).

Migraine.—

Acetic Ether.....	15 parts
Sweet Orange oil.....	3 parts
Thyme	3 parts
Clove oil.....	3 parts
Lavender oil.....	3 parts
Lemon oil.....	6 parts
Rosemary oil.....	7 parts
Menthol	5 parts
Alcohol (90 per cent.)..	150 parts

To be applied to the forehead.

—Deutsche Apotheke Zeitung.

[Note.—This is practically the preparation known under the trade name of Acetal.—Ed.]

Catarrh, Chronic Post-Nasal.—

Camphor	60 grains
Tannic acid.....	60 grains
White Sugar.....	60 grains
Snuff, (Welsh "high-dried")	60 grains

Use a pinch morning and evening, and once or twice during the day.

The remedy should be discontinued if a fresh attack of nasal catarrh sets in, but be resumed on the subsidence of inflammatory symptoms.—DOBELL.

Constipation and Pelvic Congestion.—

Magnesium sulphate..	8 drachms
Iron sulphate.....	20 grains
Manganese sulphate...	20 grains
Sulphuric acid, dilute...	120 minims
Water	4 ounces

A table-spoonfull in a wineglass of water before breakfast.

—Medical News.

Hæmorrhoidal Ointment.—

Chrysarobin	20 grains
Iodoform	10 grains
Belladonna extract.....	20 grains
Vaseline	1 ounce

Apply two or three times daily.

—KOSSOBERDCKJII (*Journal de Médecine de Paris*).

Styes.—These are usually due to eye strain. The following wash is recommended:

Boracic acid.....	60 grains
Distilled water.....	4 drachms

Bathe the eyelids every hour.

—KEIPER.

Headache, Ovarian.—

Ammonium bromide..	360 grains
Golden-Seal ext., fld..	240 minims
Gentian compound, tincture	12 drachms
Water	4 drachms
A dessert-spoonfull three times daily.	

—Medical News.

Synovitis.—Apply, as hot as possible upon layers of lint changed every hour and covered with oil silk:

Chloral	4 drachms
Carbolic acid.....	30 grains
Water, to make.....	16 ounces

—British Medical Journal.

Cocaine, To Keep.—

Cocaine muriate	8 grains
Salicylic acid.....	1 grain
Distilled water.....	6 drachms

—Journal des Praticiens.

Progress.

ough.—

All coughs are either moist or dry. The former is nearly always paroxysmal and expectoration is usually most abundant in the morning; this, like all others, is often nearly or quite suppressed toward the fatal end of most grave diseases, owing to carbon dioxide narcosis.

Pulmonary coughs are marked by more or less percussion dullness, and by double tub-crepitant and inspiratory crepitant rales or bronchial breathing. The bronchial class is marked by soreness, oppression, pain and irritation in the upper sternal region, and by moist double rales.

A dry cough is usually short, sharp, and hacking, though sometimes paroxysmal. Reflex forms are generally quickly relieved by treating the local cause. There is inability to cough in bulbar paralysis and extensive destruction of the larynx. A dry, pulmonary cough is accompanied by broncho-vesicular or bronchial breathing and impaired resonance.

Dry bronchial coughs are tight and harsh, with sonorous and sibilant rales.

Laryngeal coughs are hoarse, harsh, deep and rough, with altered voice and aryngal pricking, burning and soreness, and a constant desire to clear the throat.

The pharyngeal form is accompanied by a pricking feeling in the throat or feeling of fullness.

Nasal coughs are marked by local signs and by "hawking" mucus from the posterior nares.

Faucial cough is usually worse on lying down and attended by a tickling in the throat.

Oral cough is due to irritation of tongue or teeth.

Aural coughs are due to irritation of the auriculo-temporal branch of the fifth nerve, and may be accompanied by considerable expectoration.

Coughs of pleuritic character are generally accompanied by quick and painful breathing, and often friction-murmurs or latness.

Pressure on the respiratory tract by tumors or pseudo-tumors excites a cough, aryngal in character.

Visceral disease is a rare cause of cough, and diagnosis should be made by strict exclusion.

A uterine cough is hacking, very painful and tiring, and repeated two or three times in succession; is excited by the least irritation.

Nervous coughs are periodic or paroxysmal, usually high as to tone, quite variable (slight or prolonged) and painful; two important characteristics are that they disappear entirely during sleep, and are accompanied by no secretion whatever; on auscultation there are sometimes wheezing, rattling, scraping sounds, and there may be spasms, convulsions or aphonia.
—*Denver Medical Times.*

Smell, The Sense of.—

That we have not entirely lost this animal basis of judgment is proved by the fact we do tell ourselves very much of other people by the nose, often unconsciously.—The blind distinguish their friends by the smell of handkerchiefs or coats. Unconscious sensations and unconscious judgments form a splendid field for research, and a very rich one. We know far more by smell than is supposed. The vulgar classes have, apparently, become degraded in senses as well as habits, for their basis of social judgment is below that of the animals. It is observed that those who, fortunately, have had their senses keenly educated, are accustomed to judge of persons by odors, and such should not be a lost power. The eye does not possess the power to cover the subtle relation of individualities, neither does the ear. The finer sense is that of smell, dishonored, as it has been, and despised, as it should not be. Australian children possess the dog-like sense of trailing people by scent, and experiment reveals that this is to some degree present in every one. Strong attachments are not so rigidly ideal as we like to suppose: There is a physical basis to all our likes and dislikes. It is this which underlies the demand of refined people that their friends shall be cleanly. Our social ties have created the maxim that "cleanliness is next to godliness."—*The Open Court.*

Tuberculosis.—

Where the temperature persists above 100° Farh., without any apparent cause, tuberculosis should be suspected and sought for.—*Canadian Practitioner.*

Pædiatric Hints.—

Contracted pupils are the rule during sleep in childhood; they are also to be noted during the waking hours in beginning meningitis and in opium narcosis. Widely dilated pupils which fail to respond readily to light are seen in cerebral affections, and unequal pupils are indicative of brain affection.

When the hair is thinned or worn off the back of the head, investigate carefully for rickets.

Never ask to put out the tongue; touch the chin gently with the tip of the forefinger and gradually increase the pressure, and most children will unconsciously open the mouth.

Color liquid medicines with carmine or chlorophyll. Hue has a marked influence upon the child who has been dosed with black or clear mixtures.

Keep vinegar boiling in a tin cup over a lamp in the room where there is bronchitis, whooping cough, tonsilitis, diphtheria, or measles; half an ounce of turpentine to eight ounces of water is another excellent antiseptic, expectorant, air moistener.—Lay two nails across the top of the chimney, light the lamp, place the tin cup on the nails, and thereby is had a very good substitute for a highly-priced vaporizer.

Tincture of iodine often frightens young children if they notice the brown discoloration of the skin, hence keep the area out of their sight till clothing is replaced.

Do not fail to try the cotton jacket in bronchitis and pneumonia; have the mother quilt cotton batting inside a loose undershirt, and the jacket is made. In removing after convalescence, pluck it off a little at a time, and there will be no danger of taking cold, as might happen if removed entire.

The best syringe for the young infant is the soft-rubber bulb with soft nozzle, known as the "Ear and Ulcer" syringe; it is safe in any hands, and contains but one ounce, so that danger of excessive quantity of fluid is avoided.—*Medical Council.*

Intra-Uterine Mucus.—

This excretion is normally not only sterile but germicidal in nature.—*Medical Recorder.*

Scoliosis in Adolescents.—

Aim to diminish the rigidity of the spine and its lateral curvature, the thoracic deformity and the posterior costal angle. The suspension apparatus is useful in ordinary cases, and for those more advanced, a traction-apparatus. The thoracic deformity should be treated by manual pressure in the direction opposed to that in which the spine is curved while the patient is suspended in the apparatus. To diminish the costal angle the apparatus of Lorenz-Redard and a modified form of the appliance of Barwell may be employed. In order to retain any gain in position, in the intervals between the seances with the apparatus, apply a plaster-of-Paris jacket. In all cases however far advanced, it is possible to arrest the progress of the deformity and lessen the pain, and in more than fifty per cent. considerable improvement can be obtained; complete cure is possible in ten per cent. It is impossible to predict at the first examination how much can be done for the patient.—GOURDIN (*Annales de Médecine et Chirurgie Infantiles*).

Spinal Irritation.—

This term should be banished from medical nomenclature. The pain and tenderness along the vertebrae commonly known by this title have nothing to do with the spinal cord or its membranes, or with the spinal column. In so-called spinal irritation there are tender points along the spine. If these change their location every five or ten minutes, such shifting demonstrates that the disease, so far as the tender parts are concerned, is entirely functional and situated not lower than the cerebral cortex. Upon the correct differentiation between positive spinal irritation and functional disturbance (the seat of which is probably in the cerebral cortex), the success of the treatment in great measure depends.—PATRICK (*Medicine*).

Bright's Disease.—

Free uric acid is present in the blood in the majority of cases of this form of kidney disease, as may be proved by the mucic acid test, or by the microscope.—VON JAKSCH.

Artificial Abortion.—

The indications for terminating gestation artificially having been satisfactorily arrived at, the operation should be undertaken at as early a period as possible, and within a few days or weeks after menstruation has failed to take place. Introduce a curved metallic catheter to the very fundus of the uterus, and through it inject from forty-five to sixty minimis of tincture of iodine; withdraw the catheter, and lay a tampon against the os uteri to absorb any iodine that may trickle into the vagina. This procedure is so simple and so utterly devoid of danger that the patient may be allowed to go to her home immediately after its performance, and need not even be instructed to go to bed. Usually, on the third day a discharge of blood makes its appearance, and the expulsive action of the uterus comes into play; if these do not occur the procedure is to be repeated. No untoward results have ever been observed.—OEHLSCHLAGER (*Centralblatt für Gynäkologie*).

Cerebral Uræmia.—

There are two factors related to cerebral uræmia: A dominating toxic element caused by the failure of the diseased kidney to perform a satisfactory elimination of the debris of the organism: A mechanical factor, cerebral œdema, the localization of which in motor zones may cause convulsions, either general or limited to one side, to one member, or merely to several facial muscles. In some cases the uræmia presents an apoplectic form, in others it is hemiplegic; both depend, however, on cerebral œdema. Uræmia causes many cases of hemiplegia ordinarily supposed to be due to haemorrhage or softening. Autopsy often shows no lesion, but this may be accounted for by the theory that the area of œdema disappeared at the moment of death.—*Health* (London).

Appendicitis.—

If suppuration threatens, it will be announced by chills, higher temperature and quickened pulse. The swelling in the abdomen will become more prominent; the character of the pain will change, and every symptom of pus formation will be present. Then, whether to operate or not becomes the question. If the inflam-

matory action going on were confined exclusively to the appendix, one might hope to eliminate it entirely by removal of this organ; but this is rarely the case, for usually the cecum is first inflamed, and the appendix afterward, through extension. If, then, the appendix is removed there is still left the inflamed cecum!

Supposing that the operation is not performed and an abscess forms? In that case the tissues surrounding are re-enforced by material thrown around them. Finding its advent in the direction of least resistance, it will open into the colon in nearly every case, and the patient will not lose his life. Does surgical interference offer so much?—*American Medical Journal*.

Arsenic, Action of.—

Arsenic interferes with the normal metabolism, but the exact nature of the chemical changes which occur is not understood. While beneficial in very minute doses, in sufficiently large quantities it is able to induce inflammation in any part of the body, either when applied directly or through the circulation. The stomach may be irritated by direct action, or after the drug is absorbed the stomach may become the seat of inflammation from the arsenic in the circulation.

Arsenic in the circulation reaches all tissues. Almost all of the symptoms are produced by the action of the irritant in this manner. There can be little or no doubt that the recent Manchester epidemic was due to this poison, because there was an absence of any other sufficient cause; sufficient arsenic was discovered to produce the symptoms of poisoning, and the symptoms were identical with those produced by arsenic taken in other ways.—BRUNTON (*The Lancet*, London).

Regeneration of the Spleen.—

Laudenbach almost completely extirpated the spleen of a dog only to discover, six months later, that the organ was completely regenerated. At the spot where the mesentery had been ligated was a twisted mass of new fibrous tissue, from below which a fibrous band carrying blood-vessels passed to the newly formed spleen. Other vessels passed to the regenerated organ in a newly formed mesentery.—*British Medical Journal*.

Uric Acid, Rôle of.—

Some of the fallacies of uric acid are: That it is toxic, and a causative factor in any disease except gout:

That a condition denominated uric-acidæmia (meaning the presence of uric acid in the blood) exists:

That the chemical reaction of the blood may be altered by the use of medicinal quantities of the alkalies, or by diet:

That uratic deposits can be dissolved out by means of alkalies taken into the stomach:

That lithium is a uric acid solvent of unusual efficacy:

That uric acid is an abnormal constituent of urine:

That an excess of uric acid in urine at one time, or deficiency at another, indicates an abnormal condition in reference to uric acid:

That rheumatism is due to uric acid.—*BILLINGS (American Medicine).*

Rectocele.—

Make a triangular flap on the vaginal wall at the highest point on the rectocele, from the base of which carry two cuts down to the point on each labium where apposition will re-establish the normal perineum. Denude the space between these, excepting the triangular space mentioned, and bring together the edges of the outer incision by means of buried sutures fastened by perforated shot (making altogether a sort of a Y-shaped line of sutures). This is the best means of attaining the cardinal needs of the case, viz.—repair of the perineum; taking the slack from the lateral walls; removing the rectocele, and supplying in its stead, in the posterior wall, a contracted, cicatricial column, with prong projections into the vaginal fornix, which most nearly restores the parts to their normal function and gives support to the organs above.—*LOTT (Charlotte Medical Journal).*

Electro-Static Ray and Kidney Stone.—

I believe the time has arrived when it becomes the duty of each practitioner to subject each and every case of any affection pointing to a pathologic nephro-ureteral condition to the X-ray.—*MACRAE (American Medicine).*

To Make Milk Digestible.—

Gently warm a pint of milk, into which drop, very slowly and with constant stirring, about twenty minimis of dilute hydrochloric acid.—The milk should be stirred until it cools. By this means a very fine flocculent coagulum is produced, floating in the whey, that is easily accessible to the digestive secretions, while the whole fluid has lost somewhat of the flat and cloying taste which makes it unacceptable to so many.

It will be noticed that milk prepared in this differs from the various wheys in the highly important particular that the casein is retained and used, instead of being separated out as a distinct product, while it avoids the bitterness of pancreatinized milk.—*EDES (New York Medical Times).*

Liver, Vitality of.—

When degeneration occurs in the liver, the cells regenerate, producing tissue to take the place of that destroyed. According to Chauffard compensatory hypertrophy always occurs in the liver; this is the condition ordinarily found in diffuse or nodular parenchymatous hypertrophy. In acute yellow atrophy also, the regenerating cells are found in great numbers with those that have degenerated.—*Modern Medical Science.*

Albuminuria.—

A catarrh of the stomach and intestines exists, non-inflammatory, that is attended by the appearance of albumen and casts in the urine. The loss of water by diarrhoea may account for the albuminuria to some extent, but there is, undoubtedly, some toxic influence also present. There is a lessened water-supply in cases of constipation, owing to diminished ingestion of foods and fluids.—*STILLER (Medical Record).*

Iritis and Glaucoma.—

A symptom of iritis and glaucoma is, neuralgia of one side of the head, accompanied with inflammation of the eye.—*Practical Medicine.*

Hysteria.—

This malady, which has so many masquerades, may be often detected by the fact that the temperature is subnormal.—*CUTTER.*



DETROIT MEDICAL JOURNAL

Original Articles.

FRACTURES.*

E. B. SMITH, M. D.**

The great strides in the domain of surgery are no way better exemplified than in the management of fractures. To-day, each and every practitioner is securing more accurate diagnoses than of yore, and the treatment is more simple and intelligent; at the same time more modern appliances and new operative measures have materially changed the results. Anaesthesia, antisepsis and the electro-static ray are factors of paramount importance both as regards diagnosis and treatment—especially is that form of electrical illumination, vulgarly denominated "X-Ray" and "Roëntgen ray" (two separate forms that united produce results that are scientifically known as the electro-static ray) available where there is swelling, tenderness, and effusion about a joint, or where subluxation exists with doubt as to the fracture complication, and where there is a possibility of epiphyseal separation.

The first definite treatment prescribed for fracture embraced extension and counter-extension, and when manual assist-

ance and ordinary manipulation were inadequate to place the fractured ends in opposition, the aid of the pulley (single or compound), was invoked, frequently to the detriment of the soft tissues about the lesion, and likewise tending to increase the volume of the shock. Nevertheless, in the old treatises upon fractures are to be found many unique and interesting points. In these, however, the rules laid down as to diagnosis were frequently indefinite: For instance, one author asserts that fractures "will be found where the trauma is seen and where the patient complains of pain;" Another, that fractures are "most frequent during cold weather." Benjamin Bell† remarks:

The age and habit of the body of the patient, the site of the supposed fracture, the situation of the limb when the injury was received and, lastly, the attending symptoms, etc., must be depended upon for diagnosis. Bones are more apt to be broken in those places where they are hard and brittle, as in the firmer parts of all the long bones, than toward their extremities, where there is more soft and yielding texture, and than bones that lie deep under cover and protection of muscular parts, as in the thighs. The grating noise on the parts being handled, and distortion, and loss of power, to a certain extent, in the injured limb, will be found, on a minute examination, to accompany almost every accident of this kind. Unless the divided parts be

*Read before the Mississippi Valley Medical Society, Put-in-Bay, September 18th, 1901.

**Professor of Principles and Clinical Surgery, Michigan College of Medicine.

completely separated from each other neither distortion nor crackling will be perceived on handling them; nor will the bone be rendered incapable of sustaining those parts of the body which usually rest on it. In such cases we judge of the probability of a fracture having happened from the violence of the injury, the severity of the symptoms and other circumstances already enumerated.

Louis Stromeyer adds:††

Generally the diagnosis of fractures is not difficult, but may become extremely so in cases where œdema and muscular contractures have entered, or where complications exist. Very often it is not advisable to continue the examination too long. It suffices only to ascertain whether such injuries are present which demand immediate attention and then proceed for the time being as if a fracture actually existed. After the œdema declines the diagnosis becomes easier. Caution regarding the diagnosis of a fracture should be recommended and emphasized, notably in those cases wherein the fragments are so wedged into each other that even the employment of a pulley is not able to separate them. Even without being necessarily wedged in the fragments may happily accommodate themselves to each other so that the most important symptoms will be absent.

Turning now to the work of an American surgeon, William Gibson,‡ we find the following

The signs of fracture are not always very decisive. In general, however, crepitation, or that particular noise or sensation produced by rubbing together the fragments of a broken bone, is more to be relied on than any other, and is an almost certain indication of fracture. Added to this there is usually more or less deformity, pain, swelling and inability to use or move the limb. But these symptoms may attend luxation and other diseases, and are therefore not unequivocal proofs of fracture. Besides, it is possible for a patient actually to labor under fracture of one or more bones, and yet (from interlocking of the fragments, or from a sound bone serving as a splint and supporting the broken one) no distortion be perceived.

A few years before this, two of the most prominent authorities of the period held like views with Gibson, which they pro-

mulgated in almost the same words.†† Thus the teachers of that day were drifting, and in some measure anticipating, the theory and practice that obtain universal recognition at the present hour:

In diagnosing fractures, the following general rules are pertinent:

A complete history of the case including (when attainable) the manner in which the injury was received:

An examination of the normal landmarks and movements of the parts affected, not forgetting the position of the long axis of the bone:

A comparison with the opposite bone or side as to position and general contour,—here resort must be had to measurements, taking two extreme fixed points for the purpose, and in impaction this act may reveal the lesion and give exactitude in diagnosis:

Also abnormal movements near the joint, as well as in the shaft of a long bone, may be significant:

Finally general palpation with manipulation and (simply as confirmatory of the diagnosis) crepitus.

The accessories to diagnosis are many and a few are of sufficient prominence to warrant specific mention:

Anæsthesia is almost always essential when the fracture involves a joint or is contiguous thereto—it does away with the element of uncertainty; also it is essential in children who are frightened or who suffer much pain:

In fracture of the surgical neck of the humerus operative measures are not infrequently demanded:

The electro-static ray (Roëntgen ray) should be invoked in lesions of the extremities where overlapping bone does not intervene between the fractured parts

By aid of the latter, coupled with anæsthesia, are readily detected fractures o-

††Handbook of Surgery: 1844.

‡Institutes and Practice of Surgery: 1827.

††Dorsey. Elements of Surgery: Volume I, page 113: Allan. Principles of Surgery Volume II, page 60.

the head of the radius, of the condyles of the humerus, and of the olecranon—all of which, a few years since were grouped under the misleading and unsatisfactory title of "Fractures at the Elbow Joint."

With modern methods it is possible not only to diagnose with certainty an epiphyseal separation of the head of the humerus, but by an operation, under asepsis, to suture the separated fragment in a way to ensure a successful result.

Under the older methods a diagnosis of fracture of the skull depended solely upon the tactile senses—sight and manipulation; but to-day it is quite different, and nowhere is the advance in surgery better exemplified. Now, the attempt is made to secure a complete history of the injury and how and where it was received; the seat of pain and its character; condition of the pupils, facial muscles, etc.; the reflexes; whether respiration is interfered with; the amount of cerebral disturbance; whether or not there is hemorrhage from the ears, nose or mouth, or discharge of cerebral fluid from the two first named orifices; the existence of sub-conjunctival ecchymosis; and finally the manifestations of hemiplegia.—Any two or more of these may render the diagnosis positive. Again, in head injuries, it is requisite to remember the simulations presented by opium narcosis, sepsis, meningitis, apoplexy, uræmia, and alcoholism.

In extra-dural hemorrhage, in the majority of cases—there being no complications due to concussion or cerebral laceration,—unconsciousness may develop either in a few hours, a few days, or may be delayed for ten or twelve weeks. In concussion and laceration there may be semi-unconsciousness along with other classical symptoms, but in hemorrhage there is coma as well as unconsciousness.—Only when considerable in amount, does sanguineous effusion produce evidence of compression.

Again, before the classical symptoms

of compression supervene upon fracture, the cranial bone must be considerably depressed. Where compression is acute, the pulse is slow and feeble and the patient restless and delirious. In cases of late compression, paralysis and paresis follow muscular spasm and twitching; then come drowsiness, stupor and death,—and here is a rapid small pulse, frequent, shallow and sighing respiration that rapidly takes on the Cheyne-Stokes type as dissolution approaches.

If there is a fissure fracture of one or more bones of the head, complicated with brain laceration, all the symptoms of severe concussion are in evidence along with immediate and continued unconsciousness. Following the shock is a temperature of 103° , or higher, which renders the diagnosis of laceration positive and precludes mere concussion. Fractures in close proximity to the meningeal artery, or where a fissure of the fracture extends across the artery or any of its branches, demand immediate surgical interference.

The normal elbow has no lateral motion; but a fracture of either condyle may permit of such movement, and also may involve the ulnar nerve through compression of the latter by the separated fragment. Fractures of the humerus into the elbow joint, of the epicondyle, or of the external or inner condyle, require to be treated in the acutely flexed position, which guarantees a minimum of suffering and discomfort; and here, if massage is employed, it should be of the most gentle order and not undertaken until about the thirteenth or fourteenth day.—Note that either massage and passive motion, when provocative of pain, is pernicious in late fractures, especially those about the joints.

In fracture of the olecranon the best treatment appears to be, to extend the arm, and fix it in position by means of a long splint reaching from the axilla to the fingers, the process itself being duly manipulated into a position and held in ap-

position by means of an adhesive strip passing over it and fastened, at its distal end, to the splint some distance below.—Upon the same principle fracture of the patella may be treated. In open operations upon these parts, suturing the fibrous tissue and the periosteum will give equally as good results as suturing the bone *per se*.

In fracture of the neck of the femur, given a definite history of injury, the employment of measurements by means of Nelaton's line, Bryant's triangle, coupled with leg measurements will be amply sufficient to ensure a diagnosis. The reduction of a fracture and the application of the splint is but a small part of the required treatment. For example:—

Fracture of the surgical neck of the femur, in the aged, demands the utmost tact and broadest surgical judgment! Within two or three weeks a hypostatic pneumonia is apt to develop, which requires to be watched for and combated; so, too, as regards restlessness, kidney and skin complications, local inflammation, etc. Ulcers upon the back or heel, appearing unobtrusively, unexpectedly and rapidly, are by no means unusual features. An injury to or about the hip that in childhood would not be followed by adverse symptoms, in old age is likely to induce immediate disability and untold suffering; and it is this class of cases which presents the best opportunities for the employment of ambulatory splints—a form of surgical apparatus primarily devised for the treatment of hip-joint disease, and to permit the sufferer to take necessary exercise in the open air; to-day, however, its possibilities and utility in the management of fractures are recognized by leading surgeons, the world over. Some years since, Thomas devised a splint of this character, with which he scored some success, but which was defective in being too light, and also in that it did not permit of absolute fixation; then followed

Fowler, who exhibited his splint at the meeting of the American Surgical Society, at Detroit, but this proved too heavy and cumbersome.—Both these, however, were distinct advances along the right line.'

Recently has been invented a pneumatic ambulatory splint with which I have been able to secure most gratifying results*. It affords an unusual degree of comfort, provides for extension and counter extension at parts remote from the seat of injury; is so arranged that any interference with the circulation may be promptly noted and remedied; gives adequate protection as well as fixation and traction; in compound fracture the dressings can be applied or removed antiseptically; and finally, the fact the patient can readily promote strength and health by out-of-doors exercise is not the least of the advantages offered.

Complications may present themselves that demand the utmost surgical skill: Owing to pressure against the tissues prior to reduction of the fracture, sloughing may occur: Whether spiculae of bone should be removed in a case of compound fracture, the same as in a gun-shot wound, is often a nice point to decide: The great vessel of the limb may be lacerated or involved in a fracture of the thigh so as to induce a traumatic gangrene of so severe and rapidly destructive character as to necessitate immediate amputation. When there is considerable stripping up of the periosteum necrosis is apt to supervene: Fat-embolism, occurring the second or third day after injury, especially where there is considerable laceration of tissue in compound fractures, is often a bugbear which, however, generally yields to mobilization, heat-stimulus, and oxygen if there is threatening asphyxia.

Before closing I desire to remark upon the emoluments that obtain to the treat-

*Made by the Ambulatory Pneumatic Splint Manufacturing Company, Chicago, Illinois.

ment of fractures: There is no branch of surgery in which the fees are so wholly inadequate and disproportionate to the services rendered; even the making of a diagnosis and instituting treatment in the smallest lesion—noting the daily changes, instructing the patient when and how he may attempt the normal functions of the part or parts involved—require a degree of knowledge, skill, and experience that should receive proportionate compensation. A fracture involving a joint, or complicated by a vascular or nerve lesion, calls up all the resources of the surgeon, and the management as a whole taxes the individual as greatly as in any other branch of the surgical art. Surely, if a thousand dollars is a fair fee for performing a nephrectomy, the same amount for services in fracture of the surgical-neck of the femur is not unjust or exorbitant.—The latter involves greater detail, greater watching over a more protracted period; and the amount of worry and mental strain is immeasurably greater. When it is possible to charge and collect five-thousand dollars for an operation that removes an offending portion of the economy, it seems to me an equal amount should be demanded for preserving to the individual a limb that is of the utmost utility, especially where a compound fracture is involved and conducted to a successful issue.

26 High Street, West,
Detroit, Michigan.

ECTOPOID GESTATION COMPLICATING FIBROIDS.

BY J. MACDONALD.

I have taken the liberty of coining a new word, viz. ectopoid* to define the condition described, since it closely resembled an ectopic gestation.

Avoiding the technicalities pertaining to the early history, I may say, when called to this patient—a small wiry red hair-

ed woman,—she presented the following symptoms:

Bloody discharge from the vagina:

Bearing down pains:

The general evidences of a miscarriage in progress:

Examination revealed a large asymmetrical mass within the abdomen partly suggestive of fibroids.

Surgical interference was decided upon, despite the fact I was by no means sure of the exact nature of the case; but the character became more and more developed as the operation progressed.

An incision was made from above the umbilicus to the pubis, and the wound kept open by means of a self-retaining retractor, which I found of great service. The fibroids were readily brought into view, drawn up into the wound, the adhesions separated, and the growths finally removed; the largest one was adherent to the appendix. Then, upon further examination, was revealed a two-months foetus under the peritoneum of the left side of the uterus; also that this latter organ was ruptured sub-peritoneally.

Finally, the uterus and adnexa were removed entirely, the amputation being made with the aid of clamps, and by the V-shaped method, and the peritoneum closed up and saturated so as to leave no raw surfaces. Kelly's J-shaped needles were found of the greatest utility in stitching the peritoneum, especially deep down in the pelvis; the appendix was also removed as it was adherent to the tumor. The wound was finally closed, each layer separately. All in all the operation consumed about four hours.

Normal salines were used every six hours. The woman made an uninterrupted recovery, and was able to dispense with the services of a nurse after three weeks.

The operation was performed nearly twenty months since, and the patient for some time was bothered with a form of

**Ec*, "add"; *topois*, "place"; *eidos*, "like."

"milk leg," but she is now able to wholly attend to her household duties.

The foregoing case is evidence that had an attempt been made to treat by curetting, the damage accruing would have been incalculable and probably fatal.

Acton, West,
Ontario.

DIGITALIS.

BY DOCTOR G. ARCHIE STOCKWELL.

(Continued from page 230.)

There is no drug so uniformly and universally abused as digitalis. With the great majority of the medical profession, apparently, its application and pathological range is deemed unlimited. Not only is there an utter lack of uniformity and agreement as to its physiological action, but this is extended even to the conditions in which the medicament is applicable, including likewise the dosage and forms of administration. Notwithstanding accepted theories—many of which are wholly erroneous,—and established facts which are supposed to control its exhibition, the drug still continues to be prescribed in a loose manner for almost every disease of the nosology and, not infrequently, for every symptom pertaining thereto. Little wonder, then, that this abuse results in adverse criticism!

One of the most common of abuses is, the habit of prescribing without advising the patient to abstain from exercise while under its influence.—There are very few practitioners who have not, at sometime, been disappointed in the action of digitalis as the result of the counteracting influence of exercise. All individuals, when taking this drug, should live in perfect physical and mental quietude, or otherwise there is danger of adding to the perils of the disease-conditions demanding its use.—ENGLISH (*Medical and Surgical Reporter*, Philadelphia; Aug. 22d, 1896).

Circulatory Maladies.—Above all digitalis is a heart remedy but, despite the many years it has been before the profession, there is still as much dispute over the class of cases to which it is applicable as over its physiologic action.

If the drug were used more frequently and rationally in acute cardiac affections it would be less often demanded for chronic heart affections. It is not so much adapted to inflammations setting in with violent symptoms, as those approaching insidiously and in a scarcely observable manner, without local pain, but with a rapidly increasing embarrassment of respiration. It is an excellent remedy in acute affections, more particularly pericarditis.—Bæhr (*Science of Therapeutics*; vol. ii).

In pericarditis where the beat of the heart is very frequent and insufficient, causing cyanotic and dropsical symptoms, give digitalis.—AIRKEN (*Science and Practice of Medicine*, London. 1872); NIEMEYER (*Text-Book of Practical Medicine*, Berlin. 1873).

When the cardiac action is rapid, irregular, inactive or embarrassed, the pulse being weak, it calms the heart causing it to act regularly, often relieving unpleasant local sensations while, at the same time the pulse is improved, rendered stronger, fuller and more regular. If it appears to produce irregularity or intermittency with much feebleness of pulse, it should be discontinued.—ROBERTS (*Hand-Book of Medicine*, London. 1873).

Its best influence is manifested in atonic cases; is a very good agent where there is enfeeblement.—LOCKE (*Materia Medica and Therapeutics*. 1893).

Is of incalculable service when the heart muscle for any reason is unequal to the task set it; or in simple dilatation or failure of cardiac muscle without valvular lesion. In simple hypertrophy it does harm and should never be used. It often does good in valvular lesion with enlargement. In mitral insufficiency and in mitral stenosis is often of great service. Also useful in aortic constriction; in the irritable heart of soldiers in the early stages, but not after hypertrophy is established; in cardiac dropsy; in large doses in syncope or sudden collapse—from hemorrhage or other causes.—H. C. Wood (*Principles and Practice of Therapeutics*. 1894).

In valvular lesions with very excited heart action, irregular pulsations, increased apex-beat and dyspnoea; also valvular lesions with weakened heart and resulting dropsy, diminished secretion of urine, dyspnoea, and a rapid, irregular, small and flabby pulse; in nervous palpitations without valvular lesions; in exophthalmic goitre; simple dilatation of heart with venous engorgement; asthmatic difficulty, emphysema, dyspnoea and catarrh; weak heart-action, circulatory disturbances and their consequences occurring independently of valvular

troubles,—In all digitalis is useful.—ROTH (*Modern Materia Medica*, Berlin. 1895).

The routine exhibition is all too common and should be guarded against. True, digitalis prolongs diastole and thus rests the heart, but this good is counterbalanced by the high arterial pressure induced and the consequent straining of valves already weakened by inflammation. It is an irrational faith that leads to prescribing the drug in every case of heart-disease. In endocarditis its administration, along with anti-rheumatics like potash, is followed by good results.—CHISHOLM (*Medical Magazine*, London. 1896).

It stimulates and strengthens the weak heart,—and the weaker the cardiac muscle the more safe its administration. In hypertrophy it will reduce the pulse either as to frequency or strength, and in such cases is, consequently, dangerous. By alternating with the strongest stimulants in aortic and mitral insufficiency, it becomes astonishingly efficient; nothing like failure of the heart's action supervenes even after a month or six-weeks of use, and then should such arise, suspension for a few days enables the drug to re-assert itself. In dyspnea the relief afforded is sometimes most marked. A girl with frightful disease of the mitral orifice was obliged to rest on almost every doorstep, yet digitalis gave such relief she was able to walk with ease. In many cases of mitral regurgitation accompanied by loud and distinct murmur, the latter is reduced most decidedly, and in some instances disappears altogether.—WILLIAM MURRAY (*Medical Times and Gazette*, London. 1896).

In functional and reflex disorders, digitalis is often administered to steady and quiet the cardiac tumult, but this is flagrant abuse of a good remedy, as it merely goads an already overworked organ. Cardiac arrhythmia of myopathic origin—reflex, toxic, or nervous in nature—cannot present a reasonable cause for employing. If it is given in palpitation due to neurotic conditions, there is danger that a curable disorder will be converted into an incurable one. In aortic regurgitation it is sometimes employed in a thoughtless and careless manner, and is here harmful and often dangerous; if the diastole is increased and prolonged the period of regurgitation (and its force) is augmented and the difficulties multiply. It is, moreover, deplorable to employ in conditions of compensation, and many a case of benign hypertrophy has thus been goaded into myocardial weariness and weakness that disabled the organ. In the absence of dropsy and in all cases where the urine is voided freely, there

is little if any call for digitalis.—ENGLISH (*Medical and Surgical Reporter*, Philadelphia. Aug. 22d, 1896).

Most valuable in mitral incompetence.—Epi-

tome of Current Literature (*British Medical Journal*; vol. i. 1900).

Recommended in cardalgias in doses of ten to twenty minimis of the tincture three or four times daily, but except as it may alleviate the pain contingent upon the heart malady little can be expected of the drug, and its use is often times reprehensible.

In arteritis it is a powerful auxiliary, assisting to control the morbidly increasing action of heart and circulation but should not be employed to the exclusion of general antiphlogistic measures.

Indicated in deranged conditions of the circulatory system itself, or where an abnormal state of other organs may be improved by changing the circulation in them; and where there is actual failure in the dynamic power of the heart-muscle irrespective of the nature of any primary valvular lesion inducing the hypostolic condition. Rational use presumes the absence of extensive fatty degeneration or interstitial myocarditis. It is difficult to estimate the integrity of the heart-muscle, and many cases, presumably intolerant to the drug, bear it well.—BUTLER (*Text-Book of Materia Medica, Therapeutics and Pharmacy*. 1896).

It is generally said that digitalis is provocative of harm in aortic regurgitation, and useful in obstructive mitral disease, but it is better to rely on symptoms rather than on the nature of the valvular lesion as indications for administration. A rough-and-ready rule, which works well in practice is, that the drug can be given when the pulse is irregular or intermittent and the urine scanty. The freshly-prepared infusion is a better preparation than the tincture.—MURRELL (*Manual of Materia Medica and Therapeutics*, London. 1896).

Try in every mitral case, even pure mitral stenosis. Inefficiency may be due to irregularity arising from fatty degeneration. The indications for use are less conspicuous in aortic disease with insufficient compensation than in pure mitral cases, though in failing heart from aortic disease it may render excellent service. In irritable heart where much hypertrophy exists, the remedy may prove serviceable, and, again, may fail, totally, to afford any relief. It is often valuable in quelling attacks of palpita-

tion. Likewise is useful in fatty heart and arterio-capillary fibrosis inducing hypertrophy of left ventricle.—RINGER and SAINSBURY (*Hand-Book of Therapeutics*, London. 1897).

Where there is very violent increase of the action of the heart, setting in without fixed order, with irregularity of beats, always of short duration (such as are generally met with in very irritable, nervous individuals) digitalin affords the best treatment. Considering the mischief that is so often done by the abuse of digitalis in large doses, the effect of this drug in hypertrophy is never more than palliative. If cerebral congestion arises as the result of hypertrophy, the remedy often affords relief that is both prompt and efficient. In paroxysm of fatty heart attended with increased action, digitalis is a most reliable agent providing it is given in small doses,—the quantity, however, demands to be proportioned with the utmost care to the reactive power required. The remedy is first choice in diseases of the mitral valves.—BÆHR (*Science of Therapeutics*; vol. ii).

Angina pectoris, when a pure neurosis, yields readily to minute doses of digitalis frequently repeated, but whether it exerts a favorable action when there is absolute cardiac disease is an open question: Hartmann, however, speaks favorably of it, and bases his recommendation on personal and practical experience.

In aneurysm and atheroma it has been very generally lauded because of its "quieting influence upon the circulation," a claim that is open to some doubt and criticism, if not censure, since increased blood-pressure may, in the former tear open the wall of the sac, and in the latter lead to rupture of cerebral capillaries.

Digitalis, aconite and veratrum are most useful in tranquilizing the action of the heart.—AITKEN (*Science and Practice of Medicine*, London. 1872).

Recommended to steady and reduce the heart's action.—HOLMES—QUAIN (*Dictionary of Medicine*; vol. ii; London. 1894).

Aneurysm and decided atheroma of vessels contra-indicate the use of digitalis.—STEVENS (*Manual of Therapeutics*. 1894).

If there is increased resistance to the circulation and the heart has not sufficient power to meet the same, digitalis may be useful but only when employed with extreme caution.—

H. C. WOOD (*Principles and Practice of Therapeutics*. 1894).

Contra-indicated because it increases intra-arterial pressure.—ROTH (*Modern Materia Medica*, Berlin. 1895).

The best remedy in aneurysm is digitalis given in increasing doses until the pulse comes down to 50 or 45 beats; it should be continued as long as possible.—CLIFFORD ALLBUTT (*Practice of Medicine*, London. 1888): FARQUHARSON (*Therapeutics and Materia Medica*, London. 1889): BUTLER (*Text-Book of Materia Medica, Therapeutics and Pharmacy*. 1896).

Is contra-indicated in aneurysm and all maladies accompanied by high tension and where there is change in the cardiac muscle, or atheroma of blood-vessels, except for temporary use in emergency.—FOSTER (*Practical Therapeutics*; vol. i. 1896).

Respiratory Maladies.—Fifty to one hundred hundred years ago the remedy—like pretty nearly everything else at some period of its therapeutic life,—was heralded as an absolute panacea for phthisis pulmonalis; it was even authoritatively asserted that by its aid it is possible to arrest any form of pulmonary inflammation, regardless of ætiology. The drug is now, however, rationally rejected as not being in any sense curative, and only one of many agents that are occasionally useful, as in haemoptysis. In the latter accident it certainly affords efficient aid, especially when the haemorrhage arises from obstruction of pulmonary circulation, in turn derived from cardiac disease, or from tubercular infection alone.

Digitalis certainly will reduce the rapid pulse of phthisis, and oftentimes lower the body temperature materially and thus relieve hectic paroxysm, but if employed for these purposes its action demands to be closely watched. The claim that it will check excessive rapidity of the heart's action without in the least weakening its force—that "as a true stimulant it brings the organ down to a slower rate of action at the same time affords it more power to do its work,"—has never been substantiated either clinically or theoretically, and any such manifestation must be taken

cum grano, and if observed, relegated to mere coincidence. The writer has witnessed several most deplorable accidents as the result of this teaching.

The majority of cases of phthisis will yield to simple fox-glove.—BEDDOES (*Observations on the Management of the Consumptive*, London. 1801).

It is possible to arrest pulmonic inflammation with digitalis with as much certainty as an intermittent by means of cinchona.—MOSSMANN (*An Essay on Scrofula and Glandular Consumption*).

If given it should be combined with iron.—WARING (*Practical Therapeutics*, London. 1866).

So also digitalis has found a place in the treatment of asthma and dyspnoea, but it must be acknowledged that in uncomplicated forms it is inferior, both as to safety and efficacy, to other medicaments.

In a variety of cases I have sometimes witnessed favorable results from digitaline as long as no catarrh, emphysema or structural change in the heart exists.—BÆHR (*Science of Therapeutics*; vol. ii).

When dyspnoea is dependent on cardiac disease or upon function-palpitation, it is conceivable that, on special occasions, the drug may afford a measure of relief, but when this result has been obtained, unless there are other indications for its continuance, it should be promptly withdrawn. In spasmotic asthma it is occasionally useful, and a century since was deemed an essential routine remedy.

In Eastern Europe, particularly the Hellenic and Ottoman Peninsulas, and the Levant, fox-glove still maintains an enviable reputation in the management of pulmonary congestions, which, however, does not obtain among more Western civilizations. It is possible of course (as suggested by Huchard), that the plant indigenous to Black-Sea localities possesses peculiarities that warrant the claims advanced, yet this is hardly probable, and they, moreover, are not borne out by the death-rate from pneumonia in these regions, even taking due cognizance of un-

toward local influences and surroundings. Yet digitalis is distinctively often of value in maintaining the heart-action in the presence of adynamia, and to favor the prompt excretion of waste products by the kidneys. Another fact seldom realized is, that many cases of pneumonia owe their unfortunate termination less to pulmonary congestion *per se*, than to uræmic poisoning,—a fact too frequently lost sight of by reason of attention being fixed upon the initial lesion.

In a case with a temperature of 103° Farh., pulse 140 to 160, and not very rapid respiration, six grains of powdered digitalis were given for three days without appreciable effect; on the fourth day the dose was increased to eleven grains, when the pulse quickly dropped to 80. Even if acceleration of circulation was due to temporary paralysis of the pneumogastric and not the fever, the action of the drug was exactly in line with its physiological attributes, viz., stimulation of the pneumogastric.—EDES (*Boston Medical and Surgical Journal*; vol. xcvi. 1877).

Pneumonia may be cut short by an energetic rational treatment with digitalis, especially if inaugurated at the onset of the disease.—SHIMONEK (*Medical Age*. May 21st, 1891).

Treatment of first stage by large doses is recommended.—(*Medical Chronicle*, Manchester. May, 1893).

A tablespoonful of the infusion (60 to 90 grains to a half pint of water) every half-hour, continued three or four days, aborts the disease and reduces mortality to a minimum.—PETRESCO (*Transactions Eleventh International Medical Congress*. 1894); ZOUBKOWSKY (*Russkaia Meditza*. No. 21, 1893).

Seventy-four cases of croupous and thirty-four of lobar pneumonia treated most satisfactorily by digitalis; one death from the lobar form.—FICKL (*Wiener Medizinische Wochenschrift*. 1894).

Recoveries will and do occur in great numbers when treated by large and persistent doses of digitalis.—PAULISON (*Medical Age*. Sept. 10th, 1894).

Thirty-three cases (catarrhal form) treated with large doses of infusion. Adults bore the remedy well, but children frequently exhibited evidence of gastro-intestinal disturbance. Contra-indicated in the extremes of youth and old age.—BLOCH (*Vratch.* Nos. 15 and 16, 1894).

Despite the fact of Bloch's assertion

that "strong infusions are harmless, and have a very favorable influence upon the progress of the disease, and may even cut it short if administered at the outset," he seems not to have attained any phenomenal success, as he admits *eighteen* of his thirty-three cases terminated fatally.

In adynamic pneumonia it can have no effect upon the malady itself, but may help most opportunely to sustain the heart during a crisis or period of strain.—H. C. Wood (*Principles and Practice of Therapeutics*. 1894).

Recommended as an antipyretic and anti-phlogistic in pneumonia with high temperature and rapid pulse, but not justly.—ROTH (*Modern Materia Medica*, Berlin. 1895).

Digitoxin has a veritable abortive action on the progress of the disease.—CORIN (*Les Nouveaux Remedies*. May 8th, 1895).

When there is high fever digitalis is often valuable in relieving venous stasis. In the second stage it is of the greatest importance—to stimulate the contractile force of the cardiac muscle when the intra-ventricular pressure becomes too great and dilatation is imminent. The main indication is, increase in intensity of the second pulmonary sound.—BUTLER (*Text-Book of Materia Medica, Therapeutics and Pharmacy*. 1896).

If the patient is weak, especially when the heart is feeble, it should be given in daily doses of thirty-five to forty-five grains of the powdered leaves—every two hours,—infused in water with the addition of a little rum, and orange-peel. The treatment must be continued till the pulse becomes abnormally slow or irregular. It is doubtful if the enormous doses of Petresco are free from risk, or if the artificial lowering of temperature thus obtained is of real value.—BARTH (*Le Semaine Medical*. July 22d, 1896).

Is of conspicuous service to subdue acute inflammation in pulmonary as well as other tissues. Fairbank employed both locally and internally.—RINGER and SAINSBURY (*Hand-Book of Therapeutics*. 1897).

Of great value in pneumonia when combined with other treatment.—WHITLA (*Pharmacy, Materia Medica and Therapeutics*, London. 1899).

Indicated in the peculiar pneumonia which, not infrequently, is favored and even excited by stenosis of the left auriculo-ventricular orifice, but it is of paramount importance that it be exhibited in small doses. Large doses, even if they agree at first, in the long run exert a

pernicious influence.—BÆHR (*Science of Therapeutics*; vol. ii).

That digitalis is not ordinarily available in acute bronchitis must be self-evident, but in the chronic or senile form, when there are cyanotic symptoms and evidence of excessive determination of blood to the lungs, whereby respiration is embarrassed, it often acts like magic.

In chronic bronchitis and coughs attended with much dyspnoea and violent palpitations, prompt relief is often had by administering every four or six hours, fifteen to twenty minims of the tincture (B. P.), or a combination of digitalis, squills and mercury.—WARING (*Practical Therapeutics*, London. 1860).

When there is engorgement of veins about the head, a pale livid complexion, coldness of the skin with cold sweats, irregular pulse and beating heart, extraordinary oppression of breathing without lung infiltration, great anxiety and restlessness, or even a soporific condition with a disposition to faint, digitalis is the remedy *par excellence*.—BÆHR (*Science of Therapeutics*; vol. ii).

That the drug may prove of value in pleurisy, especially in the presence of effusion, goes without saying, but some believe it to be indicated at even an earlier period, on the theory that it combats hyperæmia.—This is laid down by such eminent authorities as Sir Thomas Watson, Fuller, Aitken and Tanner, all of whom believed the medicament (particularly when conjoined with squills and mercury) especially adapted to the pre-exudative stage, and this too, after the view that fox-glove is both adenagic and anti-phlogistic had become, in great measure, obsolete.

In recent cases, where the fever is high, give in the form of infusion. In tedious cases, where the fever is of more latent character, give the powdered leaves in one grain doses, combined with quinine.—NIEMEYER (*Text-Book of Practical Medicine*, Berlin. 1872).

Hæmorrhages.—That the drug possesses styptic properties appears not to be generally understood, or is else too frequently lost sight of, though this was wont be enumerated among its chief attributes half a century since. It is es-

pecially effective in relieving haemoptysis, haematemesis, or fluxes from the uterus.

Given in doses of eight to twelve drachms of the infusion, it never failed to arrest a menorrhagia. The effect is, undoubtedly, through the uterine ganglia whereby the organ is stimulated to contract.—HOWSLIP DICKENSON (*The Lancet*, London; vol. ii. 1855).*

In hemorrhage from the lungs give twenty minims of the fluid extract in conjunction with ergot, gallic acid, magnesium sulphate, and dilute sulphuric acid, every three hours.—HORACE DOBELL (*British Medical Journal*. June 28th, 1868): DYCE DUCKWORTH (*The Practitioner*, London. 1870).

Serous Effusions.—In 1775 Doctor Withering first brought to the attention of the medical profession the remedial powers of this drug in the removal of dropsies, though it had long been a popular domestic medicament in the northern and northwestern portions of Ireland. He demonstrated beyond all doubt the service of digitalis in hydropsies of visceral derivation; also in the serous accumulations of inflammatory origin. It is, however, preferably employed in conjunction with other diuretics—broom or squill for instance,—and a minute portion of cantharides added to the infusion enhances the action of the latter. The best results obtain to those dropsies that arise in connection with cardiac disease, or subacute nephritis. In the United States and Canada the medicament has never been employed with same freedom that obtains abroad, and in England and Scotland it was (and is, in some districts) a common practice to drench patients with an infusion made with “two handfuls” of leaves and administered *ad libitum*, or until narcosis, vomiting or purging supervens, and it is really astonishing the quantity that may, sometimes, be given without inducing untoward results, though, of course, the character of the malady must be taken into account. These large doses have generally proved so satisfactory

that the drug, by many of the older practitioners in Ireland, is deemed a specific for hydrocephalus.

Cures of hydrocele have been made by daily frictions with an ointment of six parts powdered leaves to thirty parts of lard, the patient meanwhile wearing a suspensor.—*Peninsular Journal of Medicine*; vol. iii. Feb., 1856).

It is at once the safest and best diuretic we possess and the dose may vary from ten minims to half-an-ounce of the tincture. I have given nearly four drachms, in fifteen drop doses every two hours, to a child three years of age, and by so doing subdued a rapidly developing dropsy which was threatening life.—MURRAY (*Medical Times and Gazette*, London. 1869).

An effective remedy in hydrocele (and also orchitis) is a compress, saturated with concentrated infusion, kept constantly applied to the scrotum.—BESNIER (*Boston Medical and Surgical Journal*; vol. lxxxiv. 1874).

Of the numerous diuretics the digitalis infusion is the most active and no amount of apparent cardiac weakness is, *per se*, a contra-indication.—WALSHE (*Diseases of the Heart and Great Vessels*. 1873).

A combination of the tincture with iron perchloride is particularly useful in dropsies of cardiac origin.—MURCHISON (*British Medical Journal*. Dec. 23d, 1871): TANNER (*Practice of Medicine*, London. 1869).

Produces diuresis when dropsy is due to demands upon the circulation.—MOORE (*The Lancet*, London; vol. ii. 1884).

Genito-Urinary and Renal Affections.—Digitalis has been employed for the relief of almost every conceivable malady obtaining to the genital and urinary apparatus, including disease of the kidneys; its utility, however, appears to be limited, for the most part, to suppression of kidney secretion, haematuria, particular uterine affections, and as an aphrodisiac and an anphrodisiac; it is, also, occasionally of value as an adjunctive remedy in renal and vesical calculi.

In six obstinate cases of suppression a digitalis poultice was effective.—All had resisted other therapeutic efforts. Five experienced prompt relief, and in one of these the suppression had existed 200 hours, and as a sequel she passed, between 4 a. m. and 10 p. m., enough water to fill an ordinary-sized chamber eight times! Remember to watch the pulse, for no

See also the *Detroit Medical Journal*, vol. i, p. 223: Oct., 1901.

good results will be obtained until it falls; also that suppression depends upon capillary congestion that, in turn (by pressure) may paralyze the nerves. The onset in four of these cases was sudden, like an attack of stone, and in fact calculi were passed in each instance. If the drug is carefully watched, no mischief need be feared.—I. D. BROWN (*Medical Times and Gazette*, London. Jan. 25th, 1868).

The external use of digitalis is often accompanied by the best effects. Locally it is deobstruent and antiphlogistic, and upon absorption exerts its peculiar action upon the renal and circulatory system. Apply the tincture sprinkled over spongio-pileine wrung out of hot water.—FUSSEL (*British Medical Journal*; vol. ii. 1871).

It is a valuable adjunct to anti-lithic remedies, though it is not in any sense a solvent of gravel or calculi, nor has it any power to mitigate the suffering that accrues. But it certainly does relieve in a most remarkable manner (as noted by Cullen and Barton a century since) the troublesome dysuria that is dependent upon urinary concretions; further, it tends to a greater supply of kidney secretion, which latter naturally favors solution.

Certainly fox-glove appears to manifest a direct affinity for the genital plexus, but this oftentimes depends upon the amount and regulation of the dosage. It may also, under like conditions, render certain tissues anaemic or hyperaemic, and thus act as either an aphrodisiac or a sexual sedative,—if its use is greatly prolonged the latter condition will be achieved, and with constant use practical impotency induced. As a stimulant to sexual desire, it is more effective in the female than the opposite sex, and has been known to inculcate a degree of eroticism that closely simulated satyriasis.

The influence upon the male organ is extraordinary, and its activity is equally great as regards the female organs.—BAEHR (*Science of Therapeutics*; vol. ii).

If from five to seven grains of the powdered leaves are given for five to six days consecutively, complete reaction of the generative organs is induced. It may be employed with the greatest advantage to combat eroti-excitement,

whether due to temperament, sedentary life, stimulating *regimen*, or deprivation of venereal pleasures. It is also pre-eminently useful when phymosis, paraphymosis or chordee, are either present or feared.—BROUGHMAN (*Medico-Chirurgical Review*, London. 1869).

Its antiphlogistic properties are the secret of the good effect secured in spermatorrhœa. If continued for sometime the sexual powers become weakened, the desire disappears, and the liquor seminis diminishes and may vanish altogether. In women it is aphrodisiac, but by long use induces impotence and sterility—interferes with the development of the Graæfian vesicle. It also excites strong, regular and intermittent uterine contractions, hence its control of metrorrhagias; “Is also employed”—according to Tardieu,—to excite abortion.—COURRAT (*Gazette Medicale de Paris*. Dec. 23d, 1871).

Has a specific action upon the reproductive organs, and may be used as an anaphrodisiac; consequently is valuable in spermatorrhœa, and especially so in nymphomania; likewise in nocturnal incontinence of urine.—GOSS (*Text-Book of Materia Medica, Pharmacy and Special Therapeutics*. 1889).

Is successfully employed in spermatorrhœa and nocturnal emissions.—BUTLER (*Text-Book of Materia Medica, Therapeutics and Pharmacy*. 1890).

A serviceable anaphrodisiac in spermatorrhœa in conjunction with cold bathing of genitals.—FOSTER (*Practical Therapeutics*; vol. i. 1896).

Few remedies are more available in arresting involuntary emissions than digitalis given in one or two drachm doses of the infusion, twice or thrice daily.—RINGER and SAINSBURY (*Hand-Book of Therapeutics*. 1897).

In the management of albuminuric conditions the drug has found many advocates; but, as will readily be understood, on recalling its physiological attributes, it cannot be held a positive remedy for what is, at best, but a mere symptom, except its action be determined to the primary lesion, which, usually, is unmistakably referable to the central organ of circulation; and even here it should be employed only most watchfully and cautiously. Where the kidneys are involved with any morbid process having its inception in the cardiac apparatus, individual susceptibility and idiosyncrasy are

likely to be highly developed. In the acute stage of Bright's disease, digitalis poultice and dry cupping often afford relief; and the infusion may also be employed in half-ounce doses, repeated every two hours for twenty-four hours, or as long as uræmic symptoms are urgent. But the drug should be promptly discontinued once the urine begins to flow, and diuresis continued with the aid of mild, diluent beverages. In passive renal congestion, too, which is generally associated with cardiac disease, digitalis may be indicated.

Is of service in granular degeneration of kidneys, by increasing the quantity of urine passed and lessening the amount of solids voided; also in relieving the tension of the renal capillaries.—WEBSTER (*Dynamical Therapeutics*. 1893).

Because it is claimed to increase the force of the heart and contract the vessels of the periphery—except those of the kidneys,—it is employed indiscriminately as an ideal diuretic in Bright's disease notwithstanding the contra-indications observable in capillary tension and cordy pulse. Such irrational therapeutics can result in naught but harm. It is almost foolhardy to use in chronic nephritis accompanied with high peripheral blood-pressure, as it usually is, unless preceeded by a short course of nitroglycerine to releive the peripheral tension.—ENGLISH (*Medical and Surgical Reporter*, Philadelphia. Aug. 22d, 1896).

Decidedly beneficial in the chronic form of Bright's disease where there is cardiac dilatation. In the early stage, accompanied by cardiac hypertrophy and high arterial tension, it is of doubtful utility, either alone or in combination.—BUTLER (*Text-Book of Materia Medica, Therapeutics and Pharmacy*. 1896).

Nervous Diseases.—Although no direct action is produced on brain-tissue, it may be imagined some alteration in cerebral function may follow changes induced in the vascular system; hence the apparent benefit often experienced from empirical employment in various forms of mental alienation and in epilepsy. For nearly a century the remedy, in Germany, has been considered an almost specific in mania.

Careful examination of the literature of

the subject reveals opinions about equally divided as to the value of digitalis in epilepsy; it may, therefore be assumed that it is entitled to more careful and detailed attention than has been given it of late years, particularly as Withering, Currie, Mills, Carroll, Sessions, W. Scott, and others were wont to advocate its employment in heroic doses. In the many published cases, it will be noted that failure frequently accrued, though, in a large majority the drug was not administered in consonance with the requirements laid down by its supporters.—Manifestly the dose was too small to benefit. In a few, even under full doses, digitalis proved merely palliative. In those portions of the Emerald Isle where the medicament is still deemed a specific, the doses are not only large, but enormous.

In epilepsy, though it has produced no cure, it is evident that the use of digitalis ought not to be too hastily forsaken. In mania it is often exhibited with good effect.—BARTON—CULLEN (*Treatise on Materia Medica*; vol. ii. 1812).

Its use should be limited to those cases where the malady is dependent upon disease of the heart and, particularly, where there is increased fullness and pulsation of carotids and temporal arteries.—FOVILLE—MAYO (*On Insanity: Waring's Practical Therapeutics*. 1866).

Fox-glove has also been employed in ex-ophthalmic goitre, and with a certain measure of success. This much may be said for the medicament viz., that it quiets the heart and lessens the pulse-rate; but that it has ever proved in any degree curative may be questioned.

When purely functional in character, Graves' disease has been cured by digitalein; and even in incurable cases the cardiac irregularities and dilatation of the cervical vessels are ameliorated.—CAWASJEE (*Practitioner's Vade Mecum*, Bombay. 1891).

Occasionally of benefit by its action upon the heart.—BIDDLE (*Materia Medica and Therapeutics*. 1895).

Patients may improve under a long course of digitalis, but generally this treatment fails to be of any utility.—HALE WHITE (*Materia Medica, Pharmacology and Therapeutics*. 1895).

Functional ex-ophthalmic goitre in the anæ-

mic young, and associated with cardiac weakness and dilated vessels, is often benefited by digitalis combined with restoratives.—FELTER and LLOYD (*King's American Dispensatory*; vol. i. 1898).

ALCOHOLISM.—Enormous doses of the drug are often tolerated by those habituated to alcoholics, and especially is this true of those afflicted with *mania a potu*—presumably because the heart has, by long custom, become inured and benumbed to the action of stimulants.

Digitalin given in delirium tremens in doses of 1-60 to 1-50 grain.—HOMOLLE (*Medical Times and Gazette*; vols. i and ii. 1861).

Its efficacy in large doses has been proved by numerous cases.—WARING (*Practical Therapeutics*. 1866); JONES (*Medical Times and Gazette*. Sept. 29th, 1860); PEACOCK (*Ibid.* Aug. 5, 1861); MACKENZIE (*The Lancet*, London. Mar. 1st, 1862).

The evidence of the calming effect of the drug in this malady is of the most vague kind; further, there is no indication of the class of cases in which it may be safely prescribed.—LAYCOCK (*Edinburg Medical Journal*. Nov., 1862).

Wonderfully effective where there is low arterial pressure. Is less serviceable where there is high arterial tension.—BUTLER (*Text-Book of Materia Medica, Therapeutics and Pharmacy*. 1896).

Seventy cases were treated by the late Mr. Jones of the Island of Jersey without any alarming symptoms; but others were not so fortunate, and in two instances the patients fell back dead although, up to that moment, there had been nothing to indicate serious danger. It must be remembered that if a patient dies suddenly when taking digitalis, death is always attributed to the treatment, whereas if any other drug were given the result would probably be attributed to the disease.—MURRELL (*Manual of Materia Medica and Therapeutics*. 1896).

Digitalis may be given in large doses in delirium tremens without danger. It very often does good, producing speedily, in most cases, refreshing quiet sleep, and even when it fails it generally calms undue excitement. Under this treatment severe asthenic cases in which, owing to the great prostration present, death seemed imminent, have rallied astonishingly and ultimately recovered.—The evidence of this is too strong to be disputed. Personal experiences also evidence that sthenic cases are also

amenable to the drug.—RINGER and SAINSBURY (*Hand-Book of Therapeutics*. 1897).

The tincture given in four drachm doses (every four hours for three doses) caused the patient to become quiet. If this was not sufficient another series of three doses, six hours apart, was ordered. Usually not more than three doses were necessary. The best effects were obtained in those who were strong, robust and suffering from no complications, but with violent delirium.—LOOMIS (*Journal American Medical Association*. 1901).

Febrile Maladies.—Every few years there appears to be an attempt to rehabilitate digitalis as an antithermic and antipyretic, and a wonderful amount of evidence favorable thereto is elaborated. The general application of the drug in this direction has been attended with many fatalities (and many more have occurred that have never found record) owing to the ignorance of the prescriber. The writer, during one summer, witnessed three accidents that were directly traceable to the mal-administration of digitalis,—given as an antipyretic in mild cases of intermittent and remittent fever. In typhus and typhoid it has been greatly lauded, but all the evidence adduced will not excuse the practitioner who employs from an empirical standpoint, or as a routine remedy only.

Prescribe the mineral acids in typhoid to neutralize the poison and improve the state of the blood. To promote flow of urine, give digitalis, nitrous ether and gin.—MURCHISON (*Continued Fevers of Great Britain*, London. 1873).

Miscellaneous Maladies.—The writers of the early part of the Nineteenth Century were wont to recommend the employment of large doses of digitalis for the reduction of incarcerated hernia. Also, thirty-five years ago, in *The Lancet*, London, appeared a statement that the drug will afford speedy relief where a swollen gland threatens to suppurate, and it is conceivable this is true owing to promotion of absorption and elimination.

DIGITALIS POISONING.—Digitalis poisoning is of extremely rare occurrence; a fact that may be, oftener than not perhaps,

ascribed to the practically-inert character of most of the preparations marketed. The symptoms are, for the most part, the same as when too large or too-long-continued doses have been exhibited, but in greatly-aggravated degree, viz.: Disordered state of primæ viæ; slow and irregular pulse; coldness of extremities; syncope or tendency thereto; giddiness; confusion of vision—external objects appearing of yellow or green hue,—mist or sparks before the eyes, which are prominent, with pupils fixed and perhaps dilated; weight and pain in forehead; weakness of limbs; insomnia; stupor or delirium; urine suppressed, perhaps; and there may be abundant salivation. Fatality is usually preceded by stupor or convulsions and a dilated, insensible pupil.

According to Tardieu, an almost certain diagnostic symptom of digitalis poisoning is a blue color of the sclerotic.

The minimum fatal dose is not known, and, owing to the inconsistency of its action, or rather the varying strengths of different preparations, probably never will be until some more effective measures are adopted to ensure *absolute* uniformity in individual products; and even then there are the idiosyncrasies of individuals to be reckoned with, as well as those manifested in the same individual at different periods.

After evacuating the stomach and bowels, resort must be had to tannin, opium, stimulants and the recumbent posture,—in other words, the remedies must be selected in consonance with existing conditions. Aconite also may be employed, but it requires to be administered with great caution and circumspection.

A great deal has been said and written, in the past, regarding the "cumulative action," which is heralded as an especial feature of this drug—so much so that it is frequently a deterrent bugbear to the student and young practitioner. I have no

hesitancy in saying such exceptional action does not exist, except in the sense that any drug may be cumulative, viz., by inhibition of activity of the emunctories. Just so long as the doses are kept within bounds—*i.e.*, so long as they induce diuresis, and elimination is no way interrupted,—they are safe; but extreme doses of glucosides, or even extracts, in the presence of renal suppression, (which may be brought about by the remedy itself, when injudiciously administered) are sure to produce the toxic phenomena designated "cumulative." It is often a nice point to determine whether the manifestations are due to *digitalis per se*, or to the resorption of effete products.

A lad of eight or nine years convalescing from scarlatina of the anginose type, attended with great distress in the throat and culminating in suppuration of the parotid gland, with profuse discharge of pus, began to give evidence of ascites and anasarca. During two or three days he was given, every six hours, one-and-one-half grains of powdered digitalis which increased the renal secretion and promoted absorption. The drug had been suspended for forty-eight hours, when he suddenly became comatose, with cold extremities, great prostration, oscillatory movements of eyes, frontal headache and some nausea and vomiting; pupils dilated but sensitive to light; pulse not much reduced in frequency but somewhat irregular; GOLENTINE (*Boston Medical and Surgical Journal*; vol. XLIX, October 5th, 1853).

The foregoing is a typical case of so-called digitalis poisoning, deemed "cumulative," yet it is manifest on close analysis that the drug could not have been at fault except, perhaps, indirectly. Undoubtedly the untoward symptoms were due to disturbance of renal function, and they are very suggestive of one phase of uræmic poisoning; and it likewise may be surmised (from the context) that, had the administration of digitalis been persisted in, no untoward result would have obtained.

Detroit, Michigan.

Dec., 1901.

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

DR. G. ARCHIE STOCKWELL, Editor.

—ISSUED BY—

THE DETROIT MEDICAL JOURNAL CO.,

Note.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, to 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., DECEMBER, 1901.

HOLIDAY GREETING.

We heartily wish our subscribers, patrons and friends, a very "Merry Christmas," and a most prosperous and "Happy New Year."

We also promise a number of new and helpful features for the DETROIT MEDICAL JOURNAL during the coming year.

In the meantime, your subscription will be greatly appreciated, and will tend to aid and encourage us in the purpose to provide a strictly ethical publication, managed and edited solely in the interests of the medical profession.

THE BEST ANTIPYRETIC.

Three qualities are demanded in the safe and perfect antipyretic, namely: It must be aseptic; also volatile, and; manifest the minimum of solubility toward aqueous fluids.

Chloral hydrate alone fulfills all these conditions—though chloroform offers a good second: It is antiseptic, volatile, and readily eliminated; within the economy it is converted into chloroform and sodium formate and, unless pushed too far, is not toxic,—even when administered in fatal doses, death results through lowering of the body temperature. It manifests its antipyretic action through its activity as an antiseptic whereby is neutralized the toxines that (by reason of

Nature's efforts to consume and to eliminate) induce pyrexia; at the same time it assists elimination of effete products by stimulation of the emunctories.

This product may be safely employed whenever an antipyretic, pure and simple, is demanded. It is the best possible agent in its class in the management of low, continued, febrile maladies, and as a result of twenty-five years experience therewith, we may add, it is the *only* antipyretic that is wholly and completely satisfactory in typhoid conditions.

MEDICAL ETHICS.

Most medical bodies are wont to adopt a code for the government of its members. Since any code is intended merely to outline rules of conduct that should always obtain among medical *gentlemen*, the formulating of such would seem, on its face, to be superfluous. But human nature is very much mixed: Different methods of training tend to produce results that, sometimes, are widely opposed; the same precise principles do not animate the conduct of each and every individual; and—most unfortunate of all—many medical men are not gentlemen, which is so much the worse for the profession as a whole.—Probably no other body of men and women are so beset and hedged about by personal jealousies, or so utterly at variance in matters of trifling as well as cardinal import. This is one of the evils of a calling that is not an exact science, and that can never hope to be (owing to the individualities of morbid conditions, obtaining to each and every case) involving, as it does such a diversity of coincidences.—Every day some one of us is compelled to abandon ideas as futile, that had been accepted as indubitable facts. Yet the golden rule—little beside a memory, in these days,—“Do to others as you would have them do unto you,” covers the whole field of ethics, medical or otherwise.

The trouble with the code adopted by

the American Medical Association half-a-century or more since, is not that it is illiberal, faulty or obsolete—there is not an honorable medical man who cannot subscribe to every line thereof, no matter what his pathy or ism; but the principles embodied are buried under such a mass of verbiage as frequently to demand an interpreter, and hitherto each individual and subordinate body has been accustomed to construe to personal ends, instead of referring to the Committee on Judiciary which, alone—under the Constitution, and likewise by the authority of the code itself,—is entitled to decide thereupon, *ex cathedra*. Article vi, Section 1, of the latter, expressly declares:

Diversity of opinion should be referred to the arbitration of a sufficient number of physicians, or a *court medical*.

—Certainly the Judiciary Committee, within the American Medical Association, constitutes a “court medical.”

The question of advertising is perennial. The Committee just mentioned, under authority of the Constitution, endeavoured to settle this many years since. It declared, definitely, the right of every practitioner to insert a card in his home (lay) publication, or in the newspapers current or contiguous to his place of residence; said card to embody only the name and address, professional titles, and (when the individual is a specialist) the words “Practice restricted or limited to” —specifying such limitation. Also, the placing of cards in a purely medical publication was discussed, and the rights of the practitioner affirmed, along the same lines, with the proviso that here more scientific terms can be employed,—“Oculist and Aurist” for instance, in lieu of “Practice restricted to Diseases of the Eye and Ear.”

But, regardless of this decision, it may be pointed out that the code does not take cognizance of advertising in any form save that which is manifestly (even to a

tyro) improper. Article 1, Section 1, says:

It is derogatory to the dignity of the profession to resort to public advertisements, or private cards, or hand-bills inviting the attention of individuals affected with particular diseases—publicly offering advice and medicine to the poor gratis, or promising radical cures Such are the ordinary practice of empirics and are highly reprehensible

Manifestly this embraces nothing that can be construed into a denial of the right on the part of any medical man to publish a card; it is certainly not what is intended by “private cards such as are the ordinary practice of empirics;” and the second part of the same sentence, if interpreted as literally as the first has been, would constitute a bar to all hospital and free dispensary work which, *de facto*, are “reprehensible” when conducted upon the methods that too frequently obtain.

It certainly is legitimate, through the advertising columns of the reputable portion of the medical press, to call the attention of one's brethren to any particular fitness one may possess that will fit him for a consultant, that will aid in more accurate methods of research, or secure division of responsibilities. Doctor Blank, continually and persistently, informs the medical public that he has established a “Sanitarium” or “Retreat” for the treatment of this or that malady, and no one objects; and further the same individual is frequently one of the “shining lights” of a notable and duly accredited medical association.

Finally, is the insertion of a card in a medical periodical more derogatory than the reading of essays before societies or publishing the same, to the end, *purely*, of self-aggrandizement? If such were judged by their real purpose and intent, and so “tabooed,” there would be a woeful falling off in attendance upon medical societies, and a dearth in contributions, though there is no doubt such censorship would react to the benefit of medical lit-

erature, elevating it both as to morals and tone.

Again, the day has gone-by when the practitioner because of particular or specific affiliations and teachings can be classed as an empiric. The regular profession is under deep, varied and lasting obligations to such. Further, it must be remembered, all of medicine had its origin in what is termed empiricism (as differentiated from charlatanism), and all roads pertaining thereto lead to a common goal. The demand of the hour is not for sectarianism, but for the blending and sifting of ideas to the end the best results may be obtained in combating the common foe; and this has been largely brought about by EDUCATION. The latter has broken down the barriers, admitting to its circle all medical gentlemen who comply with its demands, and who are thus brought within the pale even of the much-abused code as laid down by the American Medical Association.

DYSENTERY.

The saline treatment of this malady has been largely employed by East Indian practitioners; and also by French colonial surgeons. Clinically there are three kinds of dysentery, viz., mild, acute and chronic.

Anything will cure the first provided the patient is kept upon a low diet and confined to the bed. Acute cases with strong personality react splendidly to a large dose of ipecac namely twenty to twenty-five grains, but other acute cases are best treated by saturated solution of sulphate of magnesium.

The so-called chronic form is very different from either of the foregoing: There is nothing specific about it; it is merely a low gangrenous form of ulceration that occurs in connection with cachexia and is frequently the terminal episode of such,—and especially those of malarial or tuberculous type; also in cases which might be termed sprue; in "faminine diarrhoea,"

and among exhausted pilgrims going to and from the shrines of India.—In such the dysenteric stools alternate with diarrhoea, or there are the intervals of constipation, and they demand infinite care and patience in treatment, as well as to be restricted to a milk diet.

This form of dysentery, alternating with diarrhoea and periods of quiescence, very much resembles, clinically, the so-called "amœbic" form, with the great difference that it is almost never connected with liver abscess. Now-a-days there are few believers in an amœbic dysentery outside of the limits of the United States, and even Kartulis (who demonstrated the *Aemœba coli* in healthy stools) is no longer confident as to the pathogenic rôle of this organism—other more formidable microbes seem to be the active agents. But, to return to the question of treatment:

Rest and an amylaceous diet will cure the mild cases in a few days, hence the *post hoc* success of numerous drugs including cinnamon powder. For acute dysentery, ipecac given by the Scott-Doëker method is very affective: In those of more weakly nature the saturated solution of Epsom salt, two drachm doses three or four times daily, is to be preferred. For chronic dysentery ipecac is best avoided, and calomel, castor oil, soda and antiseptics (such as salol and bismuth) may be tried; in some cases where there is an acute exacerbation, the magnesium sulphate may have preference,—the general treatment, and milk diet, are above all necessary but must be coupled with infinite patience, both on the part of the patient and the medical attendant. Perchloride of mercury with opium and tincture of nux vomica are also useful in chronic cases and frequently prevent or postpone recurrences.

Pages might be written on this subject, but unless the class or kind of dysentery met with is defined, there is no use in recommending any particular drug. The

practical clinical distinction here made, will prevent a too great belief in the powers of a remedy that may only have been tried in mild cases—cases that scarcely need drugs at all.

TOXICITY OF PERSPIRATION.

Arloing, before the Paris Academy, claimed the perspiration induced by muscular exertion is highly toxic, and injected into the circulation of animals, at once induces depression, which may go on to fatality within thirty-six hours; *per contra*, he holds perspiration induced by heat alone is harmless. Berthelot recalled that certain old books contain a receipt for poisoning arrows by means of perspiration gathered from the axilla of a horse.

It may be that the perspiration of the quine is particularly charged with toxins, but there is more than a suspicion the axillary region of these animals never received the attention as regards cleanliness that it should, and the untoward qualities of the secretion may be extraneous rather than physical.

POISONING BY MAGNESIUM SULPHATE.

"Common salts" are generally considered as innocent as any remedy can well be, and so far as the effects are manifested in general, this belief is well borne out. However, a report comes from Russian Poland of a case of poisoning by this drug, the particulars of which, however, are not communicated.

In 1897 a like case was reported in *The Lancet* (London) by Doctor Hedley Neale, who stated a lad aged fifteen took one ounce and "thereby became violently ill;" omitting, cyanosis, tetanic spasms, weak pulse, cold extremities, and partial coma supervened. Under the action of heart stimulants the patient recovered, but it is notable that no purgative action was secured.

The *Druggist Circular*, discussing this latter case, remarked that, in March, 1888,

it had occasion to report a like circumstance with a less fortunate ending.

The question naturally arises whether the untoward events cited in each of these instances might not have been due to an adulteration—certainly a poisonous action from Epsom salt is the last thing to be expected. It is, of course, possible that there are individuals who are idiosyncratic to this medicament, but after a very careful examination of medical literature we are unable to obtain any specific information that would lead to even a suspicion of such circumstances. The symptoms detailed in *The Lancet's* case are such as would occur to a number of poisonous metallic salts, and therefore it seems more than probable that an impure or adulterated drug was at fault.

ANOTHER DEPLORABLE ACCIDENT.

Last month we had occasion to comment upon the terrible accident that occurred in St. Louis, Missouri, whereby a number of unfortunates, treated with antitoxin for diphtheria, were infected with tetanus. Hardly had our remarks been penned than the Associated Press chronicled a parallel accident in Camden, New Jersey, not through antitoxin, however, but by means of vaccine virus, whereby tetanic infection was induced in nine individuals. Information is afforded that "only seven fatalities" have accrued; but even one death, as the result of a blunder, is not only unpardonable but criminal.

Where the blame lies has not yet been definitely determined. On this occasion it would appear that a private corporation is at fault, but no names are mentioned; in fact the whole affair seems to be not only shrouded in mystery, but pervaded by a degree of reticence that is more than suggestive of an attempt to stifle criticism and publicity—this is to be observed in the silence of the so-called "enterprising" and "yellow" wing of the press. Quasi-experiments with negative results,

have been made with purported samples of the fatal virus, and as a result, a declaration promulgated that the vaccine was not at fault, but untoward "meteorological conditions creating an epidemic of tetanus"—a claim that, to say the least, is most absurd and nonsensical, especially in view of the fact that no accidents have accrued to Philadelphia, only half-a-mile away across the Delaware, with its more than million inhabitants.

Doubtless fuller light would be of benefit to the profession though we deprecate the exploiting of such if it is to serve the interests of morbid news-gathers and sensational publications. In the meantime the Anti-Vaccinationists have secured a most powerful and plausible weapon with which to belabor those who do not accept their peculiar doctrines; and it is notorious that these people have ever manifested a most unwholesome disregard for truth.

CHOLORFORM ADMINISTRATION.

Soon after the application of this benignant agent to surgery, half a century ago, Doctor Snow pointed out the chief, if not the only, danger from chloroform anesthesia is from over-dosing; that the fatalities are due solely to an excess of chloroform vapor in the air respired. Also was noted—a fact that has been, and still is, generally ignored, and yet demands to be carefully taken into consideration,—that anesthesia in the adult can be induced by even so small an amount of chloroform as one, or one-and-a-half, per cent. in the air inspired. It would therefore seem that the first requisite is a means of measuring with exactitude the amount of chloroform vapor. This has heretofore been deemed impossible; but recently an apparatus has been devised (a "regulating inhaler") which accomplishes this result perfectly and the amount of the anesthetic may be increased or decreased at will. Doctor Bell of Glasgow

asserts that by means of the new mechanism chloroform administration can be conducted with "*absolute safety!*"

EDITORIAL NOTES.

A Valuable Emmenagogue.—

Give teaspoonful of tincture sanguinaria three times daily. The result is often surprising.

Tetanus, Traumatic.—

Doctor Enrico dell'Acqua, of Paris, reports the successful treatment of three cases by means of injections of pilocarpine muriate.

Consumption.—

Brunon declares that beefsteak and onions, with lawn tennis, is more efficacious in the treatment of this malady than the entire sanatorium system of Germany.

Eyesight, Deficient.—

This is declared to be the chief cause of disqualification of candidates for the British Army. Glasses are not regarded with favor at the Horse Guards (War Office), though in Germany, and elsewhere on the Continent, a moderate amount of myopia or astigmatism is no bar to military service.

A Hint Regarding Trained Nurses.—

One of the hardest things for the nurse to learn is not to prescribe for patients. Some, pride themselves on carrying out directions to the very letter, but unless the attending physician is also careful to specify *what not to do*, it is often found all sorts of liberties have been taken and things performed that were better left undone.

Instruct the nurse never to ask the patient what she or he wants in the way of food. If anything is called for that will not injure, it should be allowed, but even then only a small portion at a time; a little bit in a dainty dish will tempt the appetite,

when a larger quantity would induce loathing and nausea.

Finally, and above all, especially if inclined to garrulity, keep her busy so that her tongue will be quiet.

Good Sense.

It has been suggested that every society, and especially the American Medical Association, should appoint a committee whose province it shall be, to reject, curtail, or abstract impartially, every paper not of suitable length and interest, the same as if presented for publication.

Better yet if the editors of society journals will cut from all articles the repetitious material, useless paddings, attempts at self-advertising or proprietary-medicine puffing that, too frequently, characterize otherwise valuable papers.

Amenorrhœa and Dysmenorrhœa.—

Experiments of Joret and Homolle have proved apiol to be a valuable emmenagogue, and the observations of these gentlemen are confirmed by many other authorities. From a physiological point of view the drug is absolutely innocuous. In doses of from seven to fifteen grains it induces slight cerebral excitement, such as is caused by coffee; doses of thirty to sixty minims produce drunkenness. Its action on the uterus is analogous to that of digitalis on the heart, and to secure its full effects it should be given shortly before each period.—*The Lancet* (London).

The difficulty is, however, to secure a pure and efficacious product. The bulk of "apiol" on the market, is nothing but oil of parsley,—colored by chlorophyll if green, oxydized by sulphuric acid if red,—and practically inert. True apiol should be in needle-like crystals and, even when mixed with a small portion of parsley oil for convenience of capsulating, should make itself manifest in this form when subjected to a low temperature. Merck & Co., however, supply the crystals in bulk when desired. The dose should be two to three grains. The price, however, is practically so great as to inhibit general employment, though it is one of the

most valuable remedies ever offered the profession. It is an excellent succedaneum for quinine, also, in malarial disorders.

For Tapeworm.—

Pomegranate-root bark	4 drachms
Pumpkin seeds (fresh)	30 grains
Male-fern, ethereal ext.	1 drachm

Boil the pomegranate-root bark and pumpkin seeds in half a pint of water for fifteen minutes, strain and allow to cool, and then add half a drachm of fluid extract of ergot (Squibb's).

Take the ethereal extract of male-fern, add to it two minims of croton oil, and rub up thoroughly with two drachms of powdered gum Arabic; with this make an emulsion with the above decoction.

It is claimed that this will remove the tapeworm within two hours, but much depends upon the quality of the ingredients, the male-fern especially.

"Alien Insane."—

Under this caption *The Boston Herald* comments most sensibly upon the increase of insanity, as the result of undesirable immigration, in the United States, and makes the demand that measures looking to relief be instituted. The ratio of insane in our asylums is given at thirty-five per cent. for those of native birth, against sixty-five per cent. of foreign extraction.

Our Canadian friends will please understand that this does not refer to those who formerly were in any way affiliated with the Dominion, or indeed to any emigration of Anglo-Saxon or Gaëlic stock, despite the employment of the term "alien."

Cystitis in the Female.—

The latest method of treating chronic cystitis in women—a malady that is usually accompanied by contraction of the bladder,—is a small balloon-shaped rubber bag, which is inserted *per urethram*, and then filled with the amount of hot water requisite to distend it. This seems to give immediate relief, even to patients who have suffered with this affliction for years.

Book Reviews.

Libertinism and Marriages. By Doctor Louis Jullien (Paris). Cloth, 12 mo.; pp. 174. Price, \$1.00. The F. A. Davis Co., Philadelphia, 1901.

As might be expected, the surgeon of the prison hospital, Saint Lazaré, wields a facile and somewhat humorous (in "French" vein) pen. Yet, underlying all is exhibited a plain, practical, common sense. The lessons inculcated are invaluable.

The volume is less a text book than an essay on morals wherein is discussed the relations of medical men toward certain sexual problems. As a whole the work is a most readable one.

The Diagnosis of Nervous and Mental Diseases. By Howard T. Pershing, M. Sc., M. D. Illustrated. Cloth, 12 mo.; pp. 223. Price, \$1.25. P. Blackiston's Son & Co., Philadelphia, 1901.

Neurological diagnosis presents peculiar difficulties for those who have not received special training therein. This work is intended, in great measure at least, to obviate these difficulties in a practical, convenient, and concise manner. The author deprecates any suggestion that the volume is intended to supersede the larger text books; the purpose is to make it adjunctive and subservient to the latter, at the same time to facilitate the acquisition of further knowledge and to stimulate research.

Medical German. By Solomon Deutsch, A. M., Ph. D.; Fifth Edition; Cloth, 12 mo.; pp. 246. Price, \$2.25. J. H. Vail & Co., New York.

This little volume was prepared, at the instance of a number of prominent physicians in the East, as an aid to the English-speaking practitioner in his intercourse with German patients, and also to facilitate consulting German medical publications. The book is separated into two marked divisions: The first gives an extensive and diversified collection of words and phrases that pertain to the science and practice and medicine; the second consists of conversations such as are presumed to be held at the bed-side, and with patients in general, covering both questions and answers. The fact the work is in its fifth edition is ample evidence that it has found a field of practical usefulness.

Physiological Laboratory Guide. By A. W. Ives, M. D. Cloth, 8 vo.; pp. 60. Price, 75c. The J. F. Hartz Co., Detroit, 1901.

The fact this work, as yet hardly two years old, requires a new edition, speaks amply of

its success and utility. It has been thoroughly revised with much new matter added, and a former errors corrected. While the author makes no pretensions to originality or exhaustion of the subject, yet he treats very thoroughly of such matters as come within the scope of the ordinary medical-college curriculum. Not alone tends to facilitate the work of the medical student, but is of equal utility to the practitioner who desires to enter the field of experiment.

The Physicians Visiting List.—Twenty-Five patients per week. Interleaved Edition Morocco; 16 mo. Price, \$1.25. P. Blackiston's Son & Co., Philadelphia.

This convenient and practical work has been before the medical public for fifty years, which fact is the best possible evidence of its merit.

New Instruments and Devices

NEW EAR SPECULUM.

This admits of five times the usual amount of light being reflected to the distal end of the instrument thereby greatly facilitating examinations and operations within the aural cavity. It is made of light spun metal and silver plate on its interior surfaces. One marked peculiarity is, the rays of light are not reflected toward the operator but, directly into the ear and upon the point in view, without intermediate obstruction.

THE DOROTHY NURSING BOTTLE.



With this invention it is utterly impossible for the nipple to collapse: likewise equally impossible for the infant to "suck air." Above all, it is absolutely aseptic and sanitary, as it can be thoroughly cleansed and sterilized in a moment, by a turn of the hand. While it acts by atmospheric pressure, yet no air can reach the contents.

Items and News.

A Label.—

God made the earth in six days, and then rested; then he made man, and rested again. Then he made woman; and since that time neither God or man has had a rest.—*Medical World.*

commendable Caution.—

Visiting Clergyman: "I'm very glad to have been of any comfort to your husband, my good woman. But what made you send for me instead of your own minister?"

Good Woman: "Weel, sir, it's typhus my poor man's got, and we dinna think it just reet for our ain meeneester to run the risk."—*Tid-Bits.*

A Convenient Device.—

A portable spirit lamp can be made from a metal thermometer case, by simply fitting it with a few strands of wick and filling with spirits. Screw on the top and place a piece of rubber tubing over the joint, making it spirit-tight. It is good for sterilizing needles, a suitable companion to Pavy's urinary test case, and available for many other purposes.—*Medical Times and Gazette.*

Adulterated Linseed Meal.—

Abroad an ingenious method of sophisticating is practiced. The cake, left after expression of the fixed oil, is triturated with a petroleum of about the same density as linseed oil, and the mixture sold as "pure crushed flaxseed." Assay will, of course, show the full amount of oil, but the adulteration is liable to be overlooked except on critical examination.—*Food and Sanitation* (London).

Prevention of Conception.—

Before the Hamburg Obstetrical Society various methods were suggested, none of which, however, appear to be certain. Objections were made to the so-called "occlusive" pessaries, as they frequently give rise to endometritis, and are pernicious in cases of inflammatory disease of the pelvic organs. The concensus of opinion was, that under some conditions the physician is justified in trying to prevent conception.—*Centralblatt fuer Gynakologie.*

An Everyday Tale.—

Mrs. Merony (through the telephone): "Is that you, Doctor?"

Doctor: "Yes; who is it?"

Mrs. Merony: "Mrs. Merony. O, Doctor! what shall I do for the baby? He has swallowed a dime."

Doctor: "Well, you surely don't want to spend two dollars to get a dime, do you?"—*Newman Independent.*

Curangine.—

This is an alkaloid derived from *Curanga amara*, (a member of the family Scrophularacæ, having the formula $C_{48}H_{17}O^{20}$). It is easily soluble in alcohol (ethylic and methylic), aqueous acetone, and acetic ether; less so in ether, petroleum spirit, carbon disulphide; and but partly soluble in chloroform and pure acetone; in water it is soluble to the extent of 6.18 per cent. It has marked febrifuge properties.—*BOORSMA.*

"Ale," Origin of the Word.—

Is there anything more English than "ale?" It carries back to the banquets of our dead ancestors in Valhalla, and some of its compounds open up vistas into that old England which is fast disappearing. Such are "ale-bush," a tavern sign; "ale-conner," "an officer appointed in every court leet, and sworn to look to the assize and goodness of bread, ale and beer;" "ale-cost," a kind of tansy used to flavor the rustic's home-brewed—yet bears witness to the mongrel nature of the speech of a mongrel nation, cost being from the Greek *kostos* (a savory herb). "Alegar" is eager or sour ale, used as vinegar.—*Exchange.*

Color of Water and Alcohol.—

An interesting series of experiments deals with the color of the alcohols as compared with water. None of the alcohols are colorless when the thickness of fluid is twenty-six metres; methyl alcohol appears greenish blue, ethyl alcohol the same but of a less warm color, while amyl alcohol is greenish yellow. The pure blue color observed in water becomes thus modified by the admixture of more and more yellow as one passes from one term of the homologous series of compounds to the next.—*SPRING (Bulletin Royal Academy, Belgium).*

Therapeutic Brevities.

Belladonna in Whooping Cough.—This medicament is probably the best remedy for whooping cough, and its value has been upheld by Jacobi for years, who relies upon it almost exclusively, no other drugs being used except perhaps chloral and bromides at bedtime, and then only if the cough is distressing at night, and at the beginning of treatment.

In order to get results the drug must be pushed to the physiological limit—that is, until the characteristic flush of the face is produced; this occurs in from five to twenty minutes after a dose ranging from two to twenty drops of the tincture. Whatever dose produces the flush must be given three times daily, and the flush watched for each time.

No case has yet been seen which did not yield in from three to five weeks where treatment was assiduously carried out. Sometimes the paroxysms seem to increase in number and violence for the first few days, but after that they grow milder and diminish in frequency to the end.

To one firmly convinced that whooping cough can be conquered in such a short time, it seems strange to hear physicians say that nothing can be done for this disease but to let it take its course for weeks and months, until the patient dies or partially recovers.—BYRNE (*Merck's Archives*).

Stomach Diseases, Olive Oil in.—In cases of ulcer, cancer and stenosis, a wine-glassful before meals will prevent the severe pain that follows upon eating. In many cases of functional stenosis the concomitant dilatation of the stomach disappears completely. Twelve cases of gastric catarrh, treated by this method, yielded uniform good results whenever the oil was well borne—about one in twenty, cannot take the medicament in the doses required,—that is, up to about sixty to seventy-six drachms daily.

In two instances this treatment was tried as an *absolutely* last resort before operation, yet proved successful; the patients, who had lost so much in weight as to appear most cachectic, began immediately to gain in flesh, and within two months were almost cured.—CONHEIM (*Medical News*).

Anæsthesia.—The anæsthetist should observe the pulse rate and tension, and the condition of the pupils, before beginning the anæsthetic: A dilated pupil which does not react to light is one of the earliest symptoms of syncope:

In case of heart failure during anæsthetization, König's method of massaging the heart gives most satisfactory results—this, by making regular pressure with the semi-closed hand over the heart, with the object of stimulating ventricular contraction:

It is useless to give cardiac stimulants before the circulation has been re-established:

Chloroform, as well as ether, will produce albumen and casts in the urine, although in cases of renal disease its effect is much less deleterious than the effect of ether.—EISENDRATH (*Journal American Medical Association*).

Aspirin.—This salt is due to the action of anhydrous acetic acid on salicylic acid; it is entirely free from irritating effect upon the stomach, and the ringing in the ears and the disturbance of the nervous system produced by salicylic acid and quinine. In rheumatic fever and the wandering pains that are apt to follow the congestive stage, sometimes of a neuralgic character, the remedy is of special value, as well as in the headache, the fever, the aching and soreness of the muscles, and the neuralgic pains of the whole system. It may be given in fever, five to twenty-five grains, every two or three hours, in solution, dry on the tongue, or in capsules. The freedom of the drug from unpleasant drawbacks makes it a desirable remedy for children and delicate persons.—*New York Medical Times*.

Adulterated Kusso.—Much of the powdered kusso contains at least ten per cent of male-flowers, stems, stipules, and other impurities,—the male flowers are strongly emetic and nullify the anthelmintic action of the female flowers. Imbed a little of the powder in a chloral-hydrate solution (chloral hydrate, 5, water, 2 parts) and examine microscopically under a power of 400. The pollen grains have an exceedingly characteristic ball-shape, and are thirty-three to thirty-five microns in diameter, with three clefts from which the

pollen tubes protrude during growth. Search should also be made for the characteristic cells of the fibrous layer of the anthers, as well as for fragments of the calyx of the male flowers. It is recommended above all that kusso be purchased only in bundle form and then personally powdered.—KOSTERS (*Schr.-erin Wochenschrift fuer Chemische und Pharmacie*).

Spasmodic Croup, Glonoin for.—Nitroglycerin, given in small doses, frequently repeated, is an ideal remedy where steam inhalations and emetics fail, or where the latter cause too much depression. To children from five to ten months old, give from one-one-thousandth to one-six-hundredth of a minim, repeating in five to ten minutes if no effect is noticeable. Usually, in ten minutes, there is marked relief from dyspnoea and in the general appearance. By means of these small doses (from every fifteen minutes to once in one to three hours), the laryngeal spasms are controlled. Sometimes it is not necessary to repeat more than once or twice; at other times the remedy requires to be continued, at more or less frequent intervals, for two or three days.—MARSHALL (*Atlantic Medical Weekly*).

Snake Bite.—Stop immediately the circulation in the bitten member or part of body, so as to prevent absorption of the poison. Freely incise and enlarge the fang wound and suck forcibly to extract the poison—the suction may be accomplished with a cupping-glass or with the mouth, the poison being harmless when swallowed. Inject hypodermatically three to six drops of a fresh ten per cent. aqueous solution of calcium chloride into about a dozen areas around the wound.—Gold chloride is just as effective, but too expensive. Potassium permanganate is of little value.

Give strychnine hypodermatically to stimulate the respiratory centre. Whiskey should not be given at all, or only in very small doses, because an excess of alcohol still further depresses a heart already depressed by the venom.—MCFARLANE (*International Medical Magazine*).

Digitalis, Prolonged Use of.—Contrary to general opinion, digitalis may be employed over long periods. In cases of

acute dilatation of the heart where there is great cyanosis and serious disturbances of the circulation, large doses may be employed and repeated several times until the desired effect is obtained. I do not hesitate to employ a dose of ten or twelve grains repeated once, or even twice, at intervals of four or five hours, until the serious acute condition is overcome. In chronic loss of compensation, I use four to six grains daily for weeks, or even months, and have no fear of its cumulative effect. I usually employ four to six minims of Squibb's fluid extract per day combining with sparteine, or with arsenic, or with strychnine.—JACOBI (*Medical News*).

Morphine, Action of.—Emptying of the stomach is much delayed. The gastric secretion in the beginning undergoes a diminution, but later there is an enormous increase, and increasing doses progressively increase these results. With the same dose, the subcutaneous injection produces more marked disturbances of the stomach than exhibition by the mouth; in the latter the food present at the time decides, according to its slow or rapid absorption, whether the appearance of the described symptoms be mild or well marked.—HIRSCH (*Centralblatt für Innere Medecin*).

Gall-Stone, Nitroglycerin for.—To a woman, aged forty-eight, suffering from gall-stone colic, one-hundredth of a grain nitroglycerin was given, which afforded relief in a few minutes. Though she has since had several attacks, all have been speedily relieved by this remedy.

The use of the drug was suggested by its known paralyzing action on unstriped muscular tissue: Presumably it relaxes the spasms of the gall-bladder and ducts. Perhaps some of the cases of gastralgia that are relieved thereby are really cases of biliary colic.—TURNBULL (*The Lancet*, London).

Neurasthenia, Sexual.—

Quinine muriate.....	40 grains
Iron subcarbonate.....	120 grains
Strychnine sulphate.....	1 grain
Damiana extract.....	40 grains
Cinchona extract.....	40 grains

Make forty capsules: One after each meal.

—*Virginia Medical Semi-Monthly*.

Scabies, Speedy Cure of.—Employ fresh sulphuret of calcium made as follows:

Sulphur	3 drachms
Quicklime	6 drachms
Water	4 ounces

Boil together until combined, then allow to cool and settle; decant and preserve in hermetically sealed bottles.

Rub patient all over with soft soap for half an hour, then place in a tepid water-bath for another half hour; next rub over with the solution and allow it to dry on the skin for a quarter of an hour. Complete by washing in the bath.—*Hieminkx.*

Bruises, Olive Oil for.—When of light character, instead of having recourse to applications of arnica, camphor, and strong compression of the swelling, preference should be given to olive oil. Apply freely to the contused parts, with friction, and then cover with a compress saturated with the oil. This treatment gives immediate relief, and thereby the formation of a bloody protuberance is often prevented, while excoriations and superficial wounds heal very rapidly.—*Auger.*

Urethral Stricture, Electrolysis in.—Employ an instrument with olive-shaped electrodes. Electrolysis is indicated in cases where treatment with bougies has given no result, and in which internal urethrotomy is inadvisable owing to danger of infection, etc. First employ a current of one to twenty millampères for fifteen minutes, and later one to thirty, for three-fourths of an hour, the negative electrode being applied in the urethra.—*Rovsing (Hospitals-Tidende).*

Iceland Moss.—This is nutrient, demulcent, bitter-tonic, and possessed of marked anti-emetic properties. From thirty to fifty minims of the tincture may be administered in a little Seltzer water. It does not appear to have any effect on hysterical vomiting or upon the emesis of pregnancy.—*BRICEMARCT (Annali di Farmacotorapiæ Chimica).*

Cough.—In cases of long continued cough, not of consumption, narcissus often acts brilliantly; it is especially beneficial in lingering bronchitis, whooping or nervous coughs.—*Homœopathic Recorder.*

Anæmia.—In the chronic form, and especially in cases marked by mental depression, opium has proved to be an almost invaluable adjuvant. A formula that has done excellent service is:

Codeine phosphate.....	10 grains
Pepsin elixir.....	12 drachms
Fennel water, to make	4 ounces

One teaspoonful three times daily.

—*Luria (Merck's Archives).*

Hæmorrhages.—Bad hæmorrhages from the bowels, stomach, or lungs, also the worst cases of nose-bleed, can generally be arrested with cranesbill, given in material doses of the tincture in water. Woodward cites a number of cases where it acted beautifully; also hæmorrhages in typhoid or pneumonia.—*Homœopathic Recorder.*

Baldness.—Bathe the scalp with a thirty per cent. solution of lactic acid until local inflammation appears; when this subsides, treatment may be renewed. A new growth of hair is reported to have appeared within four weeks after the first application.—*Medical Gleaner.*

Exophthalmic Goitre.—Use tincture veratrum, at first three drops twice a day gradually increasing until twelve drops are given, morning and evening. In case where the treatment was continued for a year, the cure was complete.—*Hutchins (Chicago Medical Times).*

Eclampsias.—Veratrime is the only drug approaching a specific in eclampsia and should be used hypodermically every half-hour, while the pulse is bounding. Give enough to keep the pulse between seventy and eighty. —*Medical Council.*

Sprains, Liniment for.—

Turpentine oil.....	1 ounce
Acetic acid.....	1 ounce
Lavender oil.....	30 minims
Albumen (white of egg)	q. s.
Water to make.....	8 ounces

Apply two or three times daily.

—*Illustrated Medical Journal.*

Adynamic Fevers.—Strychnine will enable one to make use, and good use, of veratrum and aconite.—*Medical Times (New York).*

Ethyl Bromide.—This is a safe and convenient anaesthetic to employ with children for the removal of adenoids and tonsils. The effect lasts from one to three minutes, and is without unpleasant after-results. Hæmorrhage is less than when ether is used, and there is less danger than with chloroform. Note that the anaesthetic should always be had in hermetically sealed tubes, and that it is not safe to employ on a second occasion after it has once been opened to the air. The cone should not be removed from the face, once the anaesthetic is started; and the time necessary to secure unconsciousness is only about sixty seconds. If it is necessary to prolong the anaesthesia beyond five minutes, ether should have the preference.—SNOW (*Buffalo Medical Journal*).

Bronchitis, Saw Palmetto in.—This remedy proves unfailing, and I prescribe it with the assurance that the result will be most flattering, especially in weak, emaciated cases suffering from a harassing cough with profuse mucous secretion. I prescribe a teaspoonful every four hours, in water.

The old negroes have been using saw palmetto for years in coughs, colds, etc. One old darky informed me he would not give it for any doctor's medicine he ever saw. Their method of preparing it is to boil the berries down in syrup.—ELDRIDGE (*Eclectic Medical Journal*).

Salol in Typhoid.—Experience teaches that salol in typhoid or, indeed, in any other form of continued fever, is a most dangerous drug. It is very depressing, and if the heart's action is not already weak, the employment of this medicament will speedily demonstrate that a cardiac stimulant is imperatively demanded.—BLOVER.

Pruritus, Senile.—Try persistent brushing with a soft brush, to remove the unhealthy epithelium, but use no water; improvement does not occur for some time. Follow with lanoline inunctions.—JAENICKE.

Rhinitis.—A very weak solution of nitric acid, topically applied is often very effective in the management of this malady.—*Medical Summary*.

Sodium Ethylate.—This is a reliable remedy for the removable of nævi, tattoo-marks, nasal polypi, and most effective in ulcerative ozænas. In lupus it is disappointing: But is very effective in hypertrophy of the thyroid if injected every third or fourth day,—six injections will usually reduce the gland to one-third its size. For this latter purpose I employ equal parts of the ethylate and alcohol. Never use chloroform, as the mixture is dangerously explosive.—BENJAMIN WARD RICHARDSON (*The Asclepiad*).

Alboferrin.—What purports to be an entirely new iron-albumen compound was recently introduced by Fritz and Sachse, of Vienna, under the name "alboferrin." It is described as a light-brown, almost tasteless and odorless powder, readily soluble in water, and containing 0.68 per cent. of metallic iron. It is of course exalted as a hæmatinic.—*Pharmaceutische Zeitung*.

Varicose Veins.—It is claimed that most varicosities can be readily relieved by means of Faradic electricity, repeated daily for five or six weeks; that if persisted in with regularity a cure frequently results.—*Exchange*.

Aconite Poisoning.—Give twenty drops of laudanum, repeating the dose after a few minutes; also ammonia spirit by inhalation, the patient being kept, meantime, in the recumbent position. This treatment which is very effective, is not laid down in the text-books.—HARLAN.

Abrasions and Excoriations.—Tincture of benzoin is a very useful application; it is both soothing and antiseptic. Internally it is an important addition to cough mixtures in chronic bronchial catarrh.—*The Clinique* (St. Louis).

Obstinate Constipation.—

Physostigma extract	1 grain
Nux vomica extract	1 grain
Belladonna extract	1 grain
Aloes extract	8 grains

Make four pills and take one three times daily.

—BARTHOLLOW.

Seminal Emissions.—Ten to thirty drops of fluid extract cimicifuga, after meals, rarely fails to cure.—TAYLOR.

Adherent Dressings.—Employ hydrogen dioxide for separating adherent dressings. The dried blood and serum are thereby softened and dissolved, and the oxygen formed separates the dressing from the skin.—CHANAZ (*Lyon Médical*).

Dysmenorrhœa.—Pichi, which hitherto has been known only as a diuretic and anti-lithic, is now claimed to also be very effective in this malady. It is suggested to combine it with black-haw and some one of the bromides.—*Montreal Medical Journal*.

Neuritis.—The painful nerve may with advantage be painted every hour with:

Cocaine	20 grains
Menthol	60 grains
Belladonna extract....	180 grains
Ether	2 ounces

—*The Practitioner*.

Teething.—In teething, where the gums are red and swollen and the infant feverish and fretful, an application of five or six per cent solution of cocaine every two or three hours will invariably afford relief.—*Medical Summary*.

Atropine Liniment.—

Atropine	1 grain
Oleic acid.....	15 grains
Castor oil.....	15 grains
Lavender oil.....	1 grain
Alcohol (90%) to make..	100 grains

—MARTINDALE and WESCOTT.

Chilblain.—

Chloroform spirit.....	2 drachms
Belladonna liniment....	4 drachms
Comp. Benzoin, tinct.....	2 drachms
Soap liniment.....	3 ounces

Saturate a piece of sheet lint and apply.

—*Journal American Medical Association*.

Expectorant Mixture.—

Oil Tar.....	1 drachm
Horehound, ext. fluid..	2 drachms
Oil Anise.....	2 minims
Rum, Jamaica.....	4 ounces
Honey, to make.....	8 ounces

From one-half to one teaspoonful.

—*Pacific Medical Journal*.

Goitre.—Bladder wrack is one of the best known remedies.—*New, Old and Forgotten Remedies*.

Iritis.—Give bryonia in alternation with eyebright, and pronounced effect will be secured. There are thousands and thousands of physicians who never gave a dose of either of these remedies.—COOPER (*Medical Gleaner*).

Irritable Bladder.—

Salol	120 grains
Henbane, tincture....	120 minims
Buchu infusion, to make	6 ounces
A tablespoonful three times a day.	

—FOTHERGILL.

Ringworm.—

Salicylic acid	10 grains
Vaseline	1 drachm

Mix and apply twice daily.

Sometimes a little stronger ointment is necessary.

—*Canada Medical Record*.

Painless Blister.—

Menthol	20 grains
Chloral hydrate.....	20 grains
Cacao Butter.....	30 grains
Spermaceti	60 grains

—*Medical Record*.

Muco-Membranous Colitis.—

Bismuth salicylate.....	150 grains
Bismuth subnitrate....	150 grains
Quince Mucilage.....	1 pint

Employ as rectal injection.

—*Russki Vratch*.

A Taenicide.—

Male-fern, ethereal ext.	2 drachms
Calomel.....	6 grains
Peppermint water....	160 grains
Gum Arabic.....	75 grains
Syrup.....	5 drachms
Distilled water, to make	2 ounces

Give at one dose.

—DESCROIZELLES (*La Médecine Moderne*).

Ozæna.—

Creosote	64 grains
Alcohol—70 per cent..	150 minims
Glycerin	600 minims

Apply locally.

—FERRARI.

Depressed Vitality.—Strychnine, digitalin and glonoin, form a triple alliance with which to face death most effectively.—*Oklahoma Medical Journal*.

Progress.

Handy Hints.—

Remember that the little finger can be used in taking a delicate pulse when it would be impossible to readily recognize it otherwise:

Convulsions frequently may be cut short by turning the patient on the left side; the nausea as an after effect of chloroform or ether narcosis may be generally controlled in the same manner:

Vomiting after the administration of chloroform may frequently be prevented by replacing the inhaler with linen cloth steeped in vinegar, and allowing it to remain over the face for some time:

When chilly from exposure, breathe very deeply and rapidly, and the increase in bodily warmth will be surprising:

People who have weak hearts should always have their principal meal in the middle of the day, and with as little water as possible:

Many a woman's ruin is due to the old idea that she can safely leave her bed on the tenth day after confinement:

Crude petroleum, poured upon a burned surface, and covered loosely with cotton, will subdue the pain almost at once:

Black pins in surgical dressings are preferable, because they will not rust, and can be more readily seen when they are to be removed:

Strong spirits of ammonia applied to snake bites or the wounds of rabid animals, is better than any caustic; it neutralizes the virus:

In *post partum* haemorrhage, try tying a piece of strong webbing tightly above the knees of the patient.—*Modern Medicine*.

A Remarkable Escape.—

In some manner the clothing of an engineer at the Olympic Iron Works, of Tacoma, Washington, was caught in the revolving shaft of the engine and his body instantly drawn in and whirled around with the machinery. After a short time (variously estimated at from one to five minutes), the engine was stopped and the apparently lifeless body taken down, practically denuded of clothes and bleeding from many wounds on the face and on other parts of the body. Almost immediately, however, signs of recovery were shown, and before an ambulance arrived the man was able to

sit up and even to walk, with assistance. The remarkable feature of the accident lies in the fact that the man was whirled around with sufficient speed and force for his feet and legs to strike the floor and split one-inch boards, without breaking any bones or even badly straining or bruising them. As the shaft was revolving over 100 revolutions per minute, and the distance from floor to shaft is about three feet, his feet were traversing the circumference of a circle six feet in diameter at a velocity of approximately 2,000 feet per minute. We are all familiar with the phenomenon of shooting a candle through a board without damage to the candle, but that a human being can be caught by the shoulders and made to split kindlings with his heels, without damage to the aforesaid heels, seems well nigh incredible.—*Engineering News*.

Neurotic Diathesis.—

Experiments in the pathological laboratory prove that in certain forms of nervous diseases the platelets of the blood undergo an abnormal multiplication, and that these morbid products have a very pernicious influence upon the nerve elements, thereby favoring the production of neurotic disorders. When the products of such blood deterioration are transmitted from parent to offspring there is an inherited neurotic diathesis the elements of which may or may not, remain latent; the predisposition is there. Every exciting factor, as imperfect growth, bad nutrition, incorrect habit, prolonged emotion, or over-study, may develop the manifestations of more or less serious nerve disease.—*Public Health Journal*.

Phthisis, Early Diagnosis of.—

Twenty cubic-centimetres of normal salt solution, injected into an individual in whom pulmonary tuberculosis is suspected, will cause marked febrile reaction in the nine hours succeeding the injection. This is true even if there is no rise of temperature at the beginning of invasion, or after the process has developed. On the contrary, the non-tubercular individual will show no fever at all after injection. Should the reaction occur, the diagnosis of tuberculosis may be made with almost absolute certainty; if no fever occurs, tuberculosis may nevertheless exist.—FINCK (*Revue Médicale de l'Est*).

Gasoline as a Sterilizer.—

Goldis, of Toronto, states that unsterilized skin from a scraped area two inches square yielded 173 colonies of germs. After soap and water scrubbing for five minutes, the same area yielded only twenty colonies, and after two minutes scrubbing with gasoline, only sixteen colonies. The latter poured over the skin without rubbing yielded eighty-four colonies, and after repeated scrubbing but seven were obtainable.

Examination of the skin under the microscope, after cleansing with soap and water, and again after the same process had been performed with gasoline, showed that the latter cleaned, much more perfectly, all the hair follicles, the sebaceous glands, and the sweat-ducts. This would seem to show that gasoline is an effective rival of alcohol in disinfection of the hands. Both dissolve the fatty matters which serve as a culture-fields for germs, but gasoline is much cheaper and has the additional advantage of being readily obtained at any country store. A good scrubbing with this agent, followed by thorough laving and scrubbing with soap and water, will render the physician's hand sufficiently aseptic for any surgical or obstetrical operation.—*Public Health Journal.*

Spinal Anæsthesia.—

Lumbar puncture is recognized as a valuable means of diagnosis and treatment in cerebro-spinal diseases of children. That the method has proved comparatively harmless in the hands of those versed in its use does not at all prove the harmlessness of the Corning method in children. The fact that consciousness is not interfered with renders it inapplicable in many cases. It is indeed a valuable adjunct to our methods of producing anæsthesia and should be regarded only as such. Experimentation upon patients in which general anæsthesia is not distinctly contra-indicated seems unjustifiable. Many have for a long time hesitated to use cocaine in operations upon children when injected subcutaneously; how much greater must be the danger when this substance is brought into close relation with the nervous centers?—*Pædiatrics.*

Vertigo a Stomach Lesion.—

In regard to the mechanism of *vertigo e stomacho*, I personally opine that this symptom is brought about by either or all of three causes: Reflexedly through direct irritation of the gastric branches of the pneumogastric and thence by the lower cervical ganglion to the vaso-motor nerves of the vertebral artery, which supplies the internal ear: By toxæmia from ptomaines, nicotine, alcohol, re-absorption of bile or the toxines of the infectious diseases, etc: By direct pressure upon the heart through distension of the stomach and intestines by gases, resulting principally from so-called amylaceous indigestion and hyperchylis.

Treatment demands, first of all, the correction of the gastro-intestinal disorder; this may in most instances be accomplished by administering a glass or two of hot-water thirty minutes before meals, with a small portion of sodium bicarbonate before breakfast, and from three to four grains of diastase with each meal, preferably in combination with strychnine. The patient should also be instructed as to the importance of selecting an appropriate diet and thorough mastication.—THELBERG.

Intestinal Calculi of Salol.—

A woman with gastro-intestinal disturbances took sixty to seventy-five grains of salol daily, in seven-grain doses, for ten days, when she developed symptoms of complete intestinal occlusion which resisted the most energetic treatment, (including electricity) for thirty-six hours. When an evacuation was secured, a dozen calculi were brought away, all formed of salol—which had been taken in the form of a powder, and, evidently, had been dissolved in the intestines and recrystallized. The largest concretion weighed thirty grains; the total mass sixty grains. This shows the possibility of intestinal lithiasis of therapeutic origin, and also adds another to the already numerous inconveniences of intestinal antisepsis.—*Bulletin de l'Académie de Médecine.*

Puerperal Convulsions.—

Even when the spasms are apparently under control, their return may be confidently expected if the pupil remains contracted.—QUACKENBUSH.

Blood, Influences of Fæces On.—

Aqueous extracts of fæces injected in small doses into animals will provoke pernicious anæmia; alcoholic extracts under the same conditions produce a mild anæmia; ethereal solutions induce an anæmia only less severe than that caused by aqueous extracts, but, in addition, there will be haemorrhages in various organs; Extracts prepared with all three menstrua produce pernicious anæmia and haemorrhages.

The clinical deduction is, that in man a certain number of idiopathic anæmias depend upon auto-intoxication as the result of absorption of products of decomposition from the intestine. Normally these products go to the liver after having been absorbed by the portal vein, and are modified and rendered harmless; but if an excess is absorbed, as in constipation, the liver can not take care thereof and they reach the blood in an unchanged state.—BORODOULINE (*Archives of Pathology, Clinical Medicine and Bacteriology*, Moscow).

Cæsarean Section at Thirteen Years.—

The pelvic measurements were: Interspinous, 19.5; intercristal, 24; external conjugate of Baudelocque, 16; diagonal conjugate, 11; vertical height of symphysis, 4.5; conjugata vera of brim, 9.2 centimetres. The vagina was so small that the introduction of two fingers caused pain. She was found flowing profusely; the amniotic fluid had escaped; the umbilical cord was prolapsed into the vagina; the os dilated to the size of a dollar and filled with blood clots. The haemorrhage being alarming, the vagina was packed and Cæsarean section performed. The foetus lay transversely and the placenta was attached posteriorly, one-fourth being in the lower segment.

The foetus was well developed and had entered upon the ninth month. Recovery without incident.—*American Journal of Obstetrics*.

Hasty Burials.—

A woman living in Brussels informed the registrar of the death of her child. The latter found the face death-like, body stiff, heart still; he raised one of the child's arms when, instead of falling it remained in the position placed. Restor-

atives were immediately resorted to, with the result, in a few hours, life and consciousness returned.

Without enlarging on the evidences of death, it may be said that an ophthalmoscopic examination is an excellent means of diagnosis. During the last agony it is easy to identify the differences that are produced in the blood-vessels of the pupil, especially the general anæmia of the arteries and the pallor of the optic papillæ; when life ceases, the veins become separated as if cut with a knife from point to point.—*Medical Investigator*.

Dengué in Europe.—

Numerous cases of dengué have appeared in European Turkey. In July a gastro-neuro-exanthemic fever showed itself in the water-side district of Constantinople, soon spread to Pera and Stam-boul, and thence to the villages, to the consternation of the people and disquiet of physicians who failed to recognize it. A sanitary officer from Smyrna at once named it dengué—well known in Egypt under the name of *Ebul-Richiaal*,—and stated that in his own city some 30,000 persons had recently suffered therefrom. Two supposed cases of the disease appeared in Lisbon, but after careful examination it was concluded they were, after all, only examples of measles attacking adults—as they commonly do,—with great severity.—*A Medicina Contemporanea* (Lisbon).

Eye, Enucleation of.—

Pass a curved needle with a strong double thread well into the scleral tissues to give a stout hold on the eyeball. The conjunctiva being snipped vertically over the insertion of the internal rectus, the lower blade of a half-curved pair of scissors is passed under the tendon, raising it into view. Incise the tendon, capsulo-bulbar fascia, trabeculæ, sub-conjunctival connective tissue, and conjunctiva, at one time, not quite to the end of the scissors. Advance the lower blade under the superior rectus, and make a similar cut, severing the superior oblique and tissues over it. The lower blade of the scissors (that have never been removed from the capsular space) may now be carefully shifted downward, turned, and inserted under the inferior rectus, which, with the

inferior oblique, is similarly divided. The bulb can then be rotated outward, and with one cut for the nerve and one for the external rectus and tissues over it, the operation is completed, and is both rapid and effective.—MITCHELL (*Mississippi Medical Record*).

Eustachian Tube, Catheterization of.—

When the letter "e" is pronounced the soft palate raises itself and the Eustachian cushion approaches the median line, which suggests the following method: A mark is made on the curve of the catheter seven centimètres from its tip. The instrument is then passed in the usual manner until the mark is opposite the entrance of the nose,—this distance of seven centimètres being the average distance between the anterior and posterior nares. The patient then phonates "e" (English) in a continuous tone, at which moment the catheter is rotated externally. This maneuver will positively engage the tip of the catheter in the pharyngeal orifice of the tube.—OSTINO (*Archivo Italiano di Otolgia*).

Sterilizing Ophthalmic Instruments.—

Ten minutes immersion in a one to one-thousand formaldehyde solution is ample, though pure formaldehyde gas is better. The instruments are first washed and dried; then placed in a box, in the bottom of which is a dish of the sterilizing fluid; a small piece of calcium chloride is then inserted and a close fitting cover adjusted. In ten minutes the instruments are sterile, though no harm is done by leaving them in the gas for an hour.—DE SCHWEINETZ.

Nursing Women and Drugs.—

The following should not be given: Opium, morphine, atropine, hyoscyamus, colchicum, arsenic, cocaine, chloral, the salts of lead (which are precipitated by milk), digitalis, ergot, and antipyrin, in those cases in which they induce untoward effects. Quinine ought always to be given after a meal. Cocaine and camphor decrease the secretion of milk, and iron, enomymus and eupatorium augment it.—MARFAN (*Journal de Médecine de Paris*).

Worms and Fevers.—

Intestinal worms, particularly ascarides, if placed in water at 45° to 68° Farh., become stiff, curved, or coiled up, and insensitive to external stimuli. If then the temperature be elevated to 98.6°, they begin to present slight movements, and if it be increased to 102°, 104° or 106°, they become lively and energetic so that their motions seem to be rather a discharge of energy. These movements, though chiefly due to the high temperature, might also be aided by certain morbid processes, as typhoid fever, etc. This increased activity may cause them to traverse intestinal ulcers or to pass into abscesses, and thence be evacuated. A worm will not penetrate a normal intestinal wall, but if an opening present, it will pass through.—DEMATEIS (*Gazetta Medica di Torino*).

Peculiar Monstrosity.—

There was recently exhibited, at the Health Department, the body of a white child, normal from the waist up, but having instead of legs, a single appendage terminating in a four-toed foot; it was dead when born. The monstrosity is a source of much interest to physicians, who declare it the most remarkable ever seen at the Department, resembling, as it does, in general appearance, the mermaid of fable.—*Baltimore Sun*.

Duration of Vaccine Immunity.—

Immunity from vaccination lasts a much shorter length of time than is generally supposed. Statistics show a proportion of 7.35 per cent. out of twenty-three children under six years of age in whom re-vaccination was successfully performed. More frequent re-vaccination is to be recommended in childhood, especially as children are also protected from other infectious diseases thereby.—*Journal de Thérapeutique des Maladies l'Enfance*.

Chubbiness.—

When a child retains this condition (especially of the face), at an age when other children have lost it, it is an indication of lack of development, and should arouse apprehension. Such should not be forced in school or work, but be kept in the country, and every possible means taken to favor physical development.—AZOUAY.



DETROIT MEDICAL JOURNAL

Original Articles.

A CASE OF LANDRY'S PARALYSIS, WITH *NOTES.

BY JOHANN FLINTERMANN, M. D.
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In 1895, Landry published the following complex of symptoms, to which since that time the name of Landry's Paralysis has been given: "Persons who have so far shown no symptom of sickness commence to complain of slight constitutional disturbance, loss of appetite, some fever, shooting pains in the back and limbs and a sensation of weakness and numbness in the feet and legs; this is soon followed by slight paresis in the legs, usually commencing in one leg first, but in the course of a very short time extending over the other leg. After the paresis of the legs has become complete, the muscles of the trunk become affected, the paresis finally attacking the upper extremities. After the disease has reached this stage, the muscles of deglutition, articulation and respiration become involved in the same process, death finally occurring after a few days or weeks under symptoms of suffocation, except in mild cases, in which an improvement takes

place in the reverse order of the development of the symptoms, namely that the last affected muscles recover first." According to Landry, slight disturbance of sensibility belongs to the nature of the disease, but a great stress is put by him on the fact that no muscular atrophy takes place, that there are no electric symptoms of such observed, and that in fatal cases the post mortem examination has been negative.

Now let me report my case: I was called by Doctor Joseph Schulte, of Detroit, to see Charles Eickler, of Detroit, 31 years old, a machinist, who fell from his house onto the sharp edge of a board, injuring his left testicle. Patient did not pay much attention to the injury and went the next day to his work; but the testicle became swollen and painful and he had to give up and go to bed. A doctor was called, who found the testicle swollen, and tender on pressure. A poultice of snuff was applied. One week after the accident, the patient noticed a numbness in his feet and hands, more pronounced in the former; complained that his feet felt cold, was not able to distinguish between warm or cold applications and could not feel even the hottest application. When I saw him, the patient was lying in bed, sensorium

*Read before the Michigan State Medical Society.

not in the least impaired, his mind perfectly clear. He was unable to walk, could not raise his feet from the bed, nor bend his knees or thighs. The knee reflexes were entirely gone, plantar reflexes exaggerated, cutaneous reflexes slow but exaggerated, tickling of the sole or pricking the same caused weak spasmodic contraction of the muscles of the whole lower extremities. Sensation of touch was not impaired, but delayed. The localization of the points at which the feeling of touch was examined was not very accurate. Patient localized the position of feet and legs correctly. Pressure on the course of superficial and deep nerves was painful. Feet and legs were not swollen. The left testicle was somewhat enlarged; a little tender on pressure; spermatic cord on this side also tender and somewhat indurated; cremaster reflexes absent on both sides; also the muscular reflexes of the musculi recti. Patient could raise both arms, but said that they were weak and complained of numbness in his fingers. Pressure on the nerves was painful; no swelling of hands or arms. Paralysis of right facial nerve, peripheral, tongue coated; when put out, it deviated to the right side.

The patient complained of difficulty in swallowing; solids and liquids regurgitated through the nose. He complained also of palpitation and difficulty in breathing. His speech was impaired; phonation and articulation defective; profuse perspiration. The pupils were equally dilated, answered to light; muscles of the eyes functionated normally; pulse 150; temperature, 38 (Celsius); respiration, 32; bowels constipated; bladder acted normally; patient complained of insomnia; no nausea; no vomiting. No history of any serious previous disease. Family history good. Patient was married and the father of a healthy child. The urine was not examined. Examination of the heart and lungs revealed nothing abnormal. From the symptoms present, I

thought I had to deal with a case of acute descending paralysis.

Ordination: Hypodermic injections of morphine for the night; ergotine with nitrate of silver, three grains of the former with one-eighth of a grain of the latter every three hours during the day; sponging of the back with warm water.

Next day, Dr. Schulte reported that the facial paralysis had become more pronounced; the urine contained albumen.

Five days later, I saw the patient again. The right arm became paralyzed on May 16 and the left arm three days later. The latter showed signs of improvement two days after paralysis commenced in this arm. Patient was able to raise left arm to some extent, but the right arm could be moved very little; pressure of the right hand was weak. Pressure on the nerves of the upper extremities was very painful, fingers felt numb, cutaneous reflexes exaggerated, feeling of pain delayed, signs of hyperesthesia. Supraorbital, infraorbital and several points on the head very tender on pressure.

Faradic examinations of the nerves and the muscles of both arms gave signs of reaction of degeneration; the same symptoms were present in the lower extremities. Feet and legs felt very weak, numb; facial paralysis improved, deglutition also; tongue came out straight. The patient, who for several days had been unable to raise his head from the pillow, was so far improved that he easily lifted it to eat and drink. Speech was improved, respiration was easier and less frequent; muscles were flaccid.

I saw the patient again on June 3. He was improved in every respect; arms could be moved, lower extremities raised from the bed and patient could bend knees and thighs. He was able to raise himself; the facial paralysis was not entirely gone, faradic action increased, respiration still frequent, pulse, 120, temperature, 37.9 (Celsius).

Now, the question rises, whether or not

he case could properly be called a case of Landry's paralysis. Taking into consideration the etiology, there is scarcely a case on record in which after a trauma the symptoms of acute descending paralysis develop. Has the trauma in this case anything to do with the disease? If this question can be answered in the affirmative, does that speak against the diagnosis of the case? The way in which the symptoms appear before us necessitates bringing the case under the head of acute ascending paralysis. One week after the effect of the injury the patient complains of weakness commencing in his feet and legs and increasing in a short time to such an extent that he is unable to walk. An examination one week after the symptoms make their appearance reveals a perfect paralysis of the lower extremities, with absence of tendon reflexes, slight disturbance of sensibility, vaso-motor nerves so affected as to cause profuse perspiration. The paralysis successively affects the muscles of the trunk, but before attacking the upper extremities, so-called nuclear or bulbar symptoms develop, with facial paralysis, impairment of deglutition, disturbance of phonation and articulation, abnormal function of respiration and circulation. In this case, a deviation from the usual course of the disease takes place, in that before the development of paralysis in the upper extremities nuclear symptoms become noticeable and the paralysis of the upper extremities commences at the time when symptoms of improvement in the bulbar symptoms are already present. The deviation from the usual course of the disease is not necessarily a proof against the diagnosis of acute descending paralysis. Landry points in his case to the absence of muscular atrophy and the electrical symptoms of such a condition. The case reported exhibits symptoms of commencing reaction of degeneration. The absence of muscular atrophy can be explained on the ground that it had not yet

become visible on account of the short duration of the sickness. This one symptom is not sufficient to annihilate the correctness of the diagnosis—Landry's paralysis.

The fever in the case, the presence of albumen in the urine, the undisturbed state of mind, the clear sensorium, are all factors which in combination with the whole history of development of all the symptoms in the case, and also the absence of all signs of paralysis of bladder and rectum speak for the nature of the disease.

As to the probable anatomical lesion in this case, I should consider that the affection came under the head of multiple neuritis. The absence of paralysis of the bladder and rectum, the symptom of reaction of degeneration, the pain on pressure on the nerves of the head, face, upper and lower extremities, the flaccid condition of the paralyzed muscles, all these symptoms find an easy explanation in the diagnosis of multiple neuritis. The presence of paralysis of bladder and rectum does not necessarily exclude multiple neuritis. Cases of neuritis have been reported in which such paralysis was observed; I saw such a case two years ago. On the other hand, the clinical symptoms in the reported cases of Landry's paralysis are not always the same, but differ very materially. In some cases the absence of bladder and rectum paralysis is reported, in others its presence is mentioned. Muscular atrophy and its electrical symptoms are found in a great many cases. The negative results of post mortem examinations, where the case has been fatal, are not always kept up. If we bear in mind that at the time when Landry published his cases the microscopical examinations were not up to the standards of the present time, that the theory of the tendinous reflexes was not as yet known and that electric examinations was not as accurate as today, then we shall understand that the doctrine of

acute ascending paralysis now has another ground to stand on. Looking over the large number of reported cases of Landry's paralysis, we must come to the conclusion that for the present time the definition of Landry does not hold any more.

We know from our own experience of several cases of both ascending and descending paralysis, in which each particular case demands its own explanation. By considering the etiology and the pathological anatomy, we are enabled to compare the opinions of different authors on this disease, and by such a comparison we shall reach a point where we can make our classifications.

Of the etiology of Landry's paralysis, not much is known. Landry expressed in his own publication the belief that poisoning has to be considered the cause of the disease. Westphal and several others came to the same conclusions, basing their views on convincing reasons. A great many points led to the assumption that here a toxic or infectious process was at work. In a great many cases, enlargement of the spleen, swelling of the lymphatic glands, haemorrhagic foci in the lungs and the intestines, albuminuria, etc., were found. Baumgarten, Curschmann, Centani and Eisenlohr have described cases of this nature. Baumgarten published a case in which anthrax infection was observed where the bacilli were found in the blood and in the tissue fluids. Curschmann speaks of a case in which, without previous symptoms of typhoid fever on the mucous membrane of the ileum, typical typhoid lesions were found, and at the same characteristic bacilli in the tissue of the spinal cord. Centani had a case in which, besides interstitial neuritis, bacilli were found in the endoneurial lymphatic space.

The anatomical changes found in cases described as Landry's paralysis are very different. In a great many cases the post mortem results were entirely negative, corresponding to Landry's and Westphal's definition of the disease.

In some cases, disseminated inflammatory foci were found in the medulla oblongata (especially in the pyramidal tracts), exudations or capillary haemorrhages in these parts; in other cases similar or the same changes in the spinal cord were observed, particularly a swelling of the axis cylinders in the white substance of the anterior lateral columns was a prominent condition. Very often the characteristic signs of a slight poliomyelitis were present. In one case, only a degeneration of the anterior root of the spinal nerves was found; in still another, a small myelitic focus and peripheral neuritis.

Since attention has been directed to the peripheral nervous system, neuritic processes have been frequently met with, and therefore a great many authors have considered these neuritic changes as the substrata of the whole process.

On the different anatomical changes in the nervous tissue, no uniform explanation of the disease can be made.

Oppenheim expresses the opinion that the complex of symptoms can be traced back to toxins, which in the majority of cases are products of bacteria. Therefore, he argues, the possibility of its development in diphtheria, typhoid fever, anthrax, influenza, etc., exists, probably also in septicaemia. He has described a case in which a man had Landry's paralysis after an injury from a horse sick with septicaemia. Alcohol and syphilis were etiological factors. Furthermore, Oppenheim comes to the conclusion that it is very doubtful whether or not the mere entrance of microorganisms into the spinal cord, the medulla oblongata and the peripheral nervous system can cause the symptoms. He believes that the poison which causes the disease has its injurious effects on the motor tracts of the spine, medulla oblongata and peripheral nerves, that poison is able to cause paralysis without visible anatomical lesion of the affected parts; and that the same poison in some cases produces an-

tomical changes visible through a microscope, such changes sometimes to be found in the motor tracts of the medulla oblongata and in other cases in the peripheral nerves.

The vasomotor centre and tract are, as rule, very little damaged, therefore hardly any muscular atrophy is observed. Oppenheim opposes the idea of Gowers, who believes that especially the gray substance of the anterior horn, the final branches of the pyramidal tracts, are affected. He comes to the conclusion that in the affection that has been called Landry's paralysis we have to deal with a disease which can well be distinguished from other similar morbid processes. Cases which deviate from the type as described by Landry come mostly into close relation to multiple neuritis, an affection which has the toxic infectious base in common with Landry's paralysis. Oppenheim does not believe it admissible that Landry's paralysis should be entirely identified with poly-neuritis and considered as such. Leyden distinguishes between two forms of Landry's paralysis—the bulbar and the neuritic form. Solly, in a paper published in the *Berliner Klinische Wochenschrift*, No. 12, 1894, gives as the result of his investigation that cases running their course under symptoms of acute ascending or descending paralysis belong in the majority of cases to polyneuritis acuta; that some of the cases are caused by acute myelitic or metencephalic foci or by the combination of these different affections; and that there are other cases in which some cause impairs the nervous function without leaving any anatomical change discoverable through the microscope. This last form would correspond most nearly to the original definition of Landry's paralysis.

The etiology which I bring before you in the reported case is very complicated. Has the trauma, the falling on the sharp edge of a board, injuring the left testicle, anything to do with the disease? Can anything as to the cause of the disease

be found in the application of snuff tobacco? The snuff was examined to see whether or not it contained lead; no lead was found. Nicotine poisoning can be excluded. The patient had no symptoms of lues, nor alcoholism. He admits having had a gonorrhoeic infection, but should gonorrhoeic infection which occurred eight years before the disease appeared have anything to do with the disease itself? The injury to the testicle, followed by the painful swelling of it and of the spermatic cord, may have caused a process of inflammation in the spermatic nerves, resulting in an ascending neuritis of the same side, at the same time producing the same process in the spermatic nerves of the other side, extending itself over the nerves of the lower extremities, trunk, bulbar region and upper extremities. The relation between gonorrhœa and some rheumatic processes has been very often spoken of; should it therefore be possible that the poison which in gonorrhœic infection is liable to produce rheumatic attacks should remain in the organism for some time and become injurious if by some accident it is thrown into the system? The injury to the spermatic cord perhaps detached or liberated an old gonorrhœic focus, bringing it into circulation and giving rise to gonorrhœic neuritis, which runs the course of a rheumatic polyneuritis, accepting in its course the symptoms of ascending neuritis.

This is my explanation of the etiology in this case as I have reported it. Gonorrhœa eight years ago, which may have left a product of this affection in the neighborhood of the infected part; this product, having become encapsulated so as to become isolated, quasi latent, is brought again into contact with the organism, in which no pathological process so far was going on, by a trauma, in this way causing the development of the peculiar complex of symptoms called ascending paralysis.

THE CURABILITY OF DEAFNESS.

BY HAROLD WILSON, M. D.,
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In the eyes of the lay public, deafness is looked upon as an individual disease of some sort, all cases of which fall more or less into the same category. The aurist is frequently asked if he can ever really cure deafness, and depending upon what has been the patient's own experience or that of his friends, he may have either an entire lack of confidence, or an overwhelming faith in its curability. It is often difficult, even with the aid of some medical skill, to decide the matter in a given case, so that where there is an entire lack of knowledge as to the means by which curable and incurable forms may be distinguished, confusion as to the probable result of treatment is not to be wondered at. The purpose of this brief paper is to indicate in some degree, how an intelligent prognosis may be arrived at in any case coming under our observation.

It is true as a general rule, that long standing cases of deafness are incurable, and that those of recent origin may be relieved by appropriate means, although we shall find many exceptions to this. For example:

Case I. Some years ago a lady aged 48 years, consulted me concerning a deafness of one ear of some fifteen years standing.—The hearing power was very much reduced in that ear, though quite normal in the other. Upon lying down, with the normal ear upon the pillow, the deafness of the other was such, that all ordinary noises about the house, such as the voices and other sounds of children, the striking of clocks or the ringing of bells, were not heard, and in this respect, what was otherwise an infirmity, was a circumstance of real convenience. Examination of the ears showed the external auditory canal of the affected ear to be filled with a mass of hardened wax.

This was removed at one sitting with immediate and very great gain in the hearing, which however, did not rise to the normal acuteness. From a practical standpoint, the result of treatment was an immediate cure, although the restoration of hearing was not absolute. The patient was surprised, and at first delighted with the benefit gained, but a certain doubt afterward crept into her mind, since she could no longer take her daily nap in undisturbed tranquility. She had lost the means of escape from the noises which disturbed her siestas.

On the other hand, cases come for treatment in which the deafness is of comparatively recent origin, yet in which the hearing steadily declines in spite of any treatment that can be given.

I think the secret of an accurate prognosis in any case of deafness lies an understanding of the pathological conditions present. There are certain tissue changes occurring in disease, which both by experience and to some extent upon rational grounds, we have come to recognize as curable or self-limiting. There are others, which on the contrary, we believe to be beyond the limits of a possible restitution; while between these two classes of changes are others, concerning which we are still in doubt. Thus hyperæmia, anæmia, simple inflammatory states, and some purulent ones, certain swellings or infiltrations of tissues, exudations and impactions belong to the first class. Atrophy, some hypertrophies, sclerosis with the substitution of connective for other tissues, the actual death or loss of tissue, degeneration, etc., belong to the latter class.

Now, perhaps three-fourths of all cases of deafness have their origin primarily in a catarrhal condition of the aural passages, and in many of these, this condition itself is secondary to a naso-pharyngeal catarrh. A child, who may never have shown any affection of hearing, catches a severe cold and is noticed by

its parents to have become suddenly deaf, without any other marked aural symptoms. Upon examination we find the tympanic membranes slightly congested perhaps, and retracted more or less, while the naso-pharynx exhibits the usual signs of an acute catarrhal inflammation. If we could see the Eustachian tubes, we should find their lining membrane reddened, thickened and covered with a tenacious mucous discharge, more or less glueing their surfaces together and preventing the normal opening of the tubes upon swallowing, which serves to equalize the intra-tympanic air-pressure. The tympanum itself might show the indications of an acute catarrhal state, even to the presence of a fluid exudation within it, mechanically imparing the elastic functions of the ossicular chain. Such pathological states belong essentially to the class of curable ones, and clinically we should find no great difficulty in restoring this child's hearing by a combination of simple mechanical and medicinal means, or even by mechanical means alone, aided by the natural tendency of the system to recover from such an illness. When we have relieved the symptoms immediately present, and the hearing is restored, our entire duty to the case is not fulfilled. Such attacks are prone to recur, since the predisposing causes, both local and general, usually remain. If there is a constitutional dyscrasia, the appropriate remedies should be administered. If there are local abnormalities, warranting such interference, they should be corrected, and if there are hygienic defects to remedy, these should be attended to. Only in this way may a cure in the fullest sense be made, although in practice, when once the deafness has been relieved, and the child is out of its present troubles, it is not always easy to persuade parents of the necessity of further attention. If such cases receive no treatment whatever, they will generally get well spontaneously, with however, a slight persistent loss of hear-

ing, and by the repetition of the experience, a further loss occuring each time, the patient eventually becomes continuously more or less deaf. The following case illustrates this:

Case II. A little girl 5 years old was brought to me June 8th, 1900, for a deafness dating three years back, beginning in an attack of measles, and since steadily made worse by repeated colds. I found the hearing for the watch reduced to $\frac{1}{2}$ in. or about 1-80th, of what it normally should have been, while for the spoken voice, the child's hearing, although not reduced quite in this proportion, was very defective. Here, those pathological changes noted above in the acute cases, had probably become transformed into chronic states of like character. Thus, instead of simply swelling due to an easily absorbable infiltration, there was probably a more resistant hypertrophy or hyperplasia, not promising so ready or so complete a resolution. The prognosis was accordingly guarded as to the completeness with which the hearing might be restored, although it was reasonable to assume much benefit as likely to result from treatment. The patient was treated by means of inflations of the middle ears with compressed air carrying a medicated vapor, and the use of the author's Rotary Aural Masseur. After the first treatment the hearing for the watch rose in the right ear to 1- $\frac{1}{2}$ in., and in the left to 2-3 in. In two weeks, after a half-dozen treatments, this had increased to 18 in. in the right, and 8 in. in the left ear, and in a month more, the hearing for the watch was a little less than normal, while for the voice it was so good that if there was any defect, it was practically unnoticeable.

In cases of purulent inflammation of the middle ear, a very common condition, we have deafness arising from several conditions. First, the discharge itself blocks up the canal, surrounding and interfering with the vibrations of the tym-

panic membrane and ossicular chain, and second, the tissues within the tympanum become altered in character as a result of the continued inflammation, losing thereby more or less of their normal elasticity. Third, there is always some loss of substance in the membrane which of itself may or may not be of importance so far as the hearing is concerned. And further, there may be carious or necrosed conditions of the ossicles or tympanic walls with permanent loss of substance and the formation of disastrous scar tissue and adhesions. Nevertheless, in recent and mild cases, the results of treatment may be satisfactory. Such a case is the following:

Case III. A girl aged 11 was brought to me March 14, 1901. She had been ill with the grippe about a month before this time and had been confined to the bed for two weeks. During this time the hearing was considerably affected. Then, after some earache, there was a purulent discharge, first from the right, and afterward from the left ear. This had continued for some two weeks prior to the time of her visit, and the deafness was very marked, so that the voice could be heard only when it was very loud, and the speaker close to the patient's ear. The hearing for the ticking of the watch was entirely lost. There was a slight discharge present from each ear when I examined her. The ears were thoroughly cleansed by wiping; the middle ears inflated, bringing some additional discharge into the external canals through the perforations in the drum-heads, and a small amount of dry boracic acid was blown into the external auditory canals. After the first treatment, before the boracic powder was blown in, the hearing for the watch had risen to 1 in. The discharge stopped in a few days. In about five weeks, the hearing having steadily improved with each treatment, there was no longer any perceptible deafness for the voice, while for the watch it had risen to

25-30 in., and the case was practically cured.

Many cases of deafness belong to a type altogether different from the foregoing. The hardness of hearing commences and progresses so insidiously that the patient has already lost considerable hearing power before being fairly aware of the loss. There are often subjective sounds in the ears, variously described as humming, singing, rushing, roaring, buzzing, etc. There are no special symptoms of naso-pharyngeal catarrh. The tympanic membranes show no particular changes in position or character, and in short, external signs may be altogether lacking to account for the difficulty. In the hands of the expert, the functional tests with the tuning fork give certain characteristic indications, but the general practitioner is not usually familiar with these tests. If we were able to examine the intra-tympanic and labyrinthine structures however, we should find some very marked changes. There would be found in the tympanum proliferations of connective tissue, immobilizing the ossicular chain; perhaps an ankylosis of the foot-plate of the stapes in the oval window; proliferations about the round window preventing its normal elastic movements; or in the labyrinth, what is called a "spongy" degeneration, all of which changes belong to that class of tissue alterations from which recovery and the restitution of normal structure seems, in the light of our present knowledge, impossible. It is not surprising then, if such patients seek in vain for relief, and that our efforts to restore their hearing meet with so little success. Cases illustrating this type of deafness are numerous enough to be familiar to you all without the necessity of my detailing the special history of one.

With care in the diagnosis of all cases of deafness applying to us for relief, we may usually be able to differentiate the curable from the incurable, if we keep

the pathological conditions well in mind. Cases occur however, in which a prognosis cannot be made, that is, we cannot tell whether or not the hearing will improve, or just how much, until the patient has been under treatment for some time. A candid statement to the patient of his prospects for relief, it seems to me, should be given without solicitation. I believe there is no other honorable or satisfactory procedure.

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CLINICAL DATA RELATIVE TO INEBRIETY.

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The study of the effect of alcohol upon the human system received a new impetus, when recently the N. Y. Academy of Medicine devoted two evenings to the discussion of the subject, together with the critical study of a large number of cases received at Bellevue Hospital by Dr. Charles L. Dana. The latter in his report shows the limitations of the life of the drunkard, also of the periodical inebriate; the maximum capacity of the human body for alcohol; the methods of prevention; the necessity for a special law for the commitment and care of inebriates together with the treatment, temporary and permanent, of this class.

Of 350 cases studied in relation to heredity, he found that drinking habits existed in one or both parents, in all but ten per cent. In a study of 1,560 cases relative to occupation, he found the following:

Professional men	54;
Clerks and Salesmen.....	239;
Tradesmen	387;
Laborers	589;
Waiters	64;
Painters	64;
Liquor dealers	50.

In a study of 210 cases, relative to the age at which the drinking habit began, among 30 periodical drinkers, two-thirds

began drinking before 20 and all began before 30. The investigations show that the habit is formed before maturity.

Dr. Dana also cites some striking examples of besottedness, viz.: A man of 28, a dealer in liquors, drank seven or eight pints of champagne and seven to fifteen glasses of beer daily, for eight years. Then he replaced the champagne with twenty or thirty drinks of whisky. Finally he took up the cigarette habit and this began to finish him. He could no longer stand the drinking, but had an attack of cerebral automatism, and began to develop criminal tendencies.

A man fifty-five years old confessed that he had been drunk twice a day for three years, making about two thousand intoxications. He got home to dinner in a semi-drunken condition from whisky and went to bed in a similar state from beer.

A man of thirty had been drunk every night for a year and a half.

A man of forty-six had been drunk fortnightly for twenty-five years.

A man of forty had been drunk weekly for twenty years.

A man of forty-three had been drunk a thousand times in fifteen years.

A man of fifty had been getting intoxicated daily for about six months in the year since he was seventeen.

It seems that the capacity for men to get drunk over a thousand times is rare, and that two thousand is the maximum limit in an ordinary inebriate experience.

Drs. Roseburgh of Canada, Crothers of America, Norman Kerr of England, Forel of Switzerland and other scientific investigators and clinicians have done much to place the study and treatment of inebriety on a scientific basis. The medical superintendents of every hospital for the insane meet with quite a large percentage of what may be termed moral delinquents. They are on the borderland in regard to physical and mental

health. In their surroundings may be the breeding-ground of neurotic degeneration; they require hospital or asylum treatment. In another although less pronounced class, the use of alcohol is preceded by an irritable and exhausted condition of the system and the sudden removal of spirits is followed by acute delirium. In a third class are periodical drinkers who drink to excess at intervals. In a large percentage of these, investigations have shown that at least one parent has suffered from some form of neurotic degeneration. In a fourth class are often found young men, whose surroundings may be conducive to drink. They may be sons of wealthy parents, or, possibly, having inherited plastic or yielding dispositions, they may be the victims of convivial companions. The fifth class take to drink from over-work and general neglect of healthy living. They are often found among business and professional men who are working under high pressure and are generally satisfactory to treat, as they are amenable to treatment and prolonged rest.

The sixth is a not very frequent class, where inebriety is due to an injury of the brain, caused by blows upon the head.

In a seventh class are what are known as Dipsomaniacs; In this class the desire for drink becomes a mania. The patient loses respect for himself, neglects his duty to family and community. The appetite for drink becomes a disease, overpowers every other desire and he is completely enslaved. The treatment of inebriety must be based upon the above divisions and may come under two heads, the ideal and the practical; the former in an institution with good medical attendance and nursing; the latter or practical, home treatment.

In a recent report on heredity presented by Dr. T. D. Crothers are given some interesting facts based on the study of 1,744 cases of inebriety. Of these 1,744

inebrieties, 1,080 had a distinct history of heredity; 430 of these he classes as direct heredity, where the drinking of parents or grandparents reappeared in the children.

The second class he terms indirect heredities and 224 of the 1,080 were put under this head. They usually were persons whose grandparents, one or two generations back, had been moderate or, on occasions, excessive drinkers.

In the third classification, psychopathic heredity, he places 290. These cases are psychopaths or persons in whom some defect of brain and nervous system seems to persist for generation after generation. Some of the most brilliant men of the country belong to this class. Paralysis, epilepsy, hysteria and many of the obscure insanities alternate one with another. The sons of most excellent parents may become the most degenerate inebriates, and the children of these degenerate parents become model temperance men. This class furnishes the most interesting, confusing and least understood of all the hereditary cases of inebriety. In the last classification, epileptoid types of heredity, are grouped 49 persons. They were not altogether periodical drinkers, their alcoholic symptoms being always sudden and unexpected. The ancestors of these persons were always noted for sudden, explosive nerve energy. From this class come persons who have periods of "sowing wild oats."

The careful statistics of the Swiss Confederation show that about one-third of the male inmates of insane asylums, one-third of the male suicides, and one-tenth of the men who die at twenty or more, at least in the larger towns of Switzerland, are due to the alcoholic drinking of the victims. Ten families of drunkards produced fifty-seven children, twelve of whom died in infancy, thirty-six were either idiotic, misshapen or had serious nerve trouble; only nine remained nor-

mal. Ten sober families produced sixty-one children, of whom five died in infancy and fifty remained normal; only six were either somewhat undeveloped, defective or had St. Vitus' dance.

About the middle of the eighteenth century, a drunken woman gave birth to a number of children. A few years ago Professor Pelman ascertained the number and career of her descendants. Among 709 of them 106 were of illegitimate birth, 142 were beggars, 64 were supported by the municipality, 181 were female prostitutes, and 76 had been sentenced for crime, including seven murderers. This melancholy brood had cost the state five million marks. There had been 125 other descendants of whom nothing could be learned. This case demonstrates how much of the wretched element is produced and increased by means of alcohol and refutes the statement of those who declare that alcoholism exterminates the descendants and so eliminates the degenerates from society.

Treatment such as the physician can render to dipsomaniacs and at the same time allow him or her to have freedom is generally only temporary. This is one reason why a very large per cent. of those who have taken what is popularly known as the "jag cure" relapse; and it is well known to those who have observed this class that every relapse leaves the victim with less will power to resist the temptation to drink—consequently in a much worse condition. For the majority of cases that take treatment require restraint. To produce emesis, cause narcosis and administer remedies to counteract the craving for drink are but temporary expedients. The ideal treatment is institutional, and supervision not for a month, but for a year, is needed—insuring absolute abstinence from spirituous liquor in all its forms—with subsequent supervision for a year longer. The "cures," heralded with great display, have for their basis, Strychnine, Atro-

phine and Apomorphine, combined with tonics, laxatives and liquid diet, and psychological influence on the patient very ingeniously exercised.

How to carry out proper treatment long enough to be of lasting benefit to the alcoholic patient is often puzzling to physicians and interested friends. The treatment is not compulsory in our state. Inebriates as a class are impulsive, not very appreciative, impatient of proper restraint, and nearly always overestimate their ability to withstand the temptation to drink.

Clifford and Bagley.
Detroit, Mich.

Adrenalin Chloride as a Hæmostatic.—Dr. Charles P. Sauter, writing in the *Southern Practitioner*, gives some interesting account of the use of this compound. He says in part: "One case was carcinoma of the superior carotid triangle. After the administration of chloroform had begun, and about twenty minutes before I commenced to operate, I injected around the growth thirty minims of the 1:1000 Solution Adrenalin Chloride. To my surprise the first incision was bloodless, and this feature prevailed during the entire operation. Occasionally, as I proceeded, a little oozing would take place, but in every instance the application of the Adrenalin Solution by means of a pledget of cotton controlled immediately. Not only was capillary and venous oozing kept in check, but the Adrenalin served as a stimulant to the patient who, though sixty-four years of age, kept under the influence of the anæsthetic for fully two and a half hours. The perfect control which I was enabled to exercise over the bleeding in this case facilitated the complete separation of the growth from the surrounding structures; reduced materially the risk of injury to adjacent vessels, nerves and muscles; and obviated the necessity of continually mopping the wound, thus shortening the period of anæsthesia and consequently minimizing the patient's risk. The tumor was removed two weeks ago and the patient will soon be discharged. My friend, Dr. T. S. Dabney, witnessed the operation, and I am sure that he will confirm the statement that not more than a tablespoonful of blood was lost in all."

GALVANISM AND DIABETES.

BY F. C. THOMPSON, M. D.,
East Tawas, Mich.

I have long been of the opinion that patients suffering with diabetes prior to adolescence—i. e., before the fifteenth year—owe the diseased condition primarily to some disturbance or derangement of the central nervous system; also that the same cause is operative in the adult, but by reason of the fact that other organs are so speedily and coincidently involved, the mode of treatment outlined in this brief paper, will be of little value, except perhaps in the way of palliation. I have had no opportunity to test my theories or the treatment accurately or conclusively; but in one instance, an adult, the relief afforded was so remarkable that I feel constrained to report the same, to the end that some of my *confrères* may take the matter up and work out the theory to some definite conclusion. The method I suggest, and which I have reason to believe will prove specially effective as regards diabetes is merely: Lying at ease in a quiet room; fixation of vision, and galvanism of the cerebrum by means of the "ascending current."

A woman aged thirty-four presented herself with diabetes. Though not deemed a favorable subject for experiment—not alone on account of age, but because of obstruction of portal circulation that had culminated in ascites so great as to render any attempt at examination of the abdominal viscera futile,—it was decided to try this method, particularly as it alone presented any chance of relief. Tapping I did not dare suggest, inasmuch as the slightest untoward result would ensure the patient being removed from my care.

A large oval piece of sheet copper was hammered out to fit the occiput, to which were added flat pieces to embrace the cranium as far forward as the hair-line, and on the sides to the mastoids, these slips being retained in close contact by means of rubber bands. To this cap was attached the

"positive" wire, while the "negative" terminated in a large disk of the same metal applied to the umbilicus. A Willm's current-controller was added to the circuit along with a milliampère-metre registering as low as one-tenth milliampère.

Five minutes were allowed at the first treatment to bring the current up to four milliampères, where it was held for the space of sixty seconds, and then reduced gradually to zero during five minutes more. Daily this application was repeated, each time allowing the full current to be maintained at four milliampères for sixty additional seconds, until it could be borne for five full minutes; thus, latterly, the entire procedure covered a period of fifteen minutes. This treatment was persisted in for one week, with a daily analysis (quantitative) of the entire urine passed during twenty-four hours, but no decrease in the amount of sugar could be detected; at the same time a control test was employed by means of a sugar solution of known strength.

The current was then reversed, applying the "négative" to the skull-cap and the "positive" to the umbilicus. The secretion passed during the following twenty-four hours was heavily loaded with phosphates, so much so as to present a milky hue. On the third day the contained sugar was appreciably lessened; on the fourth the excess of phosphates wholly disappeared and did not again return; and with each consecutive application of electricity after the third day the sugar diminished until at the expiration of a fortnight it was entirely absent. The patient now expressed herself as feeling immeasurably better, and was able to assist in the duties about the house where she resided. The amount of water passed during twenty-four hours varied from three to four pints. Cardiac action was greatly improved, but the ascitic condition showed no change—for the reasons already given, the operation of paracentesis was not suggested.

Finally, the patient decided to return home, and nothing could shake her determination; consequently she passed from under my charge. Of what transpired during the interval that elapsed between this time and her death, I am not in position to speak definitely; but I am informed that she suddenly, some three weeks later, experienced an attack of dyspnoea accompanied by severe pain in the hepatic region, with symptoms pointing to the passage of gall-stone; also that the urine was examined by her medical attendant and found to present its original percentage of sugar. The ascites now increased; the pain referred to in the region of the liver was never absent; and death followed some ten days later.

In my limited field I have, as yet, failed to observe diabetes in the child, and may never have an opportunity to do so; consequently the facilities to continue the research along this line, and to verify or disprove my theory, are problematical. For this reason I offer my views, along with this experience, to the profession for what they may be worth and with the hope that others may take up the subject and carry it to some definite conclusion. I will only suggest the advisability of the patient being nourished with the greatest regularity by means of an albuminous diet—feeding, say: On rising; again at 10 a. m.; at 12 m.; at 4 p. m.; and, finally at bed time. An albuminous diet is suggested, not so much as to avoid starches and sugars as because of the hyperchlorhydia invariably present in diabetes. No meat should be allowed save "Salisbury steaks." Of course variety is required so that the palate may be tempted and satisfied, at the same time avoiding cloying of the appetite; and it goes without saying that all starchy foods need not be rejected, though good judgment must countenance their selection and employment.

East Tawas, Mich.

Points in Appendicitis Diagnosis.—Curschmann, the often-quoted German

authority, sets down the following rules in the *Münchener Medicinische Wochenschrift*: In the great majority of cases the simple forms of appendicitis may be distinguished from the suppurative ones by a white-cell count, and this holds true especially where the physical signs and temperature curve are uncertain. The simple cases show an absence or only slight increase of leucocytes and their number generally falls to or nearly to normal in a few days. High counts in these cases may, however, occur in the beginning of the disease; the number, however, rarely exceeds twenty to twenty-two thousand, and if the number of leucocytes remains high and other lesions, such as pneumonia, may be excluded, abscess-formation is almost certain. If an operation is performed, a count near the normal will soon be obtained, provided free drainage takes place even if this occurs into the rectum or some other hollow viscus. A methodical examination of the blood in all these cases is a much more trustworthy guide than the fever curve. Concerning cases in which small abscesses undergo a spontaneous cure or where perforation into the peritoneal cavity takes place, the author has no experience, but it is probable that in the latter the number of white cells rapidly sinks to or below the normal.

Vioform for Iodoform.—Krecke, writing in the *Münchener Medicinische Wochenschrift*, recommends vioform very highly as a substitute for iodoform. According to his idea it is equal to the latter, or better than it, in all the conditions for which it can be used. Vioform chemically is iodochloroxychinolin. It is neutral in reaction, yellow in color, and entirely odorless. It has the advantage of keeping the wound dry. Physiologically it is remarkable chemotactic, for when injected beneath the skin of animals, it produces an aseptic abscess.

**MYXŒDEMA—A CASUISTIC CONTRIBUTION
FROM THE DETROIT SANITARIUM.**

BY MAX BALLIN, M. D.,
Detroit, Mich.

William Gull (*) described first in 1874 a complex of symptoms which he called a "cretinoid state supervening in adult life in women, on account of great resemblance to cretinism." The main feature of the condition was a peculiar œdematosus swelling of the skin, combined with mental and bodily symptoms. In 1887, Ord (**) made examinations of five cases of the same condition. He referred the symptoms to a diseased condition of the thyroid gland and introduced for the same the name "Myxœdema," because of the mucin yielding characteristic œdema of the skin. Since then many publications about this disease have appeared of which two have to be mentioned as especially important: In 1883, Kocher (†) of Switzerland described a similar condition following total extirpation of Goitre, and called the same "Cachexia strumipriva;" and Reverdin (††) called attention shortly afterwards to the similarity of the Myxœdema of Ord and the Cachexia strumipriva of Kocher.

Both conditions were attributed to loss of function of the thyroid gland, in one case by operative removal, in the other case by disease of the gland. Soon it was learned that Cretinism was nothing but myxœdema, either congenital or acquired in early life. This short historical sketch is finished if we add that after the disease was known only 16 years not only etiology and pathology were thoroughly laid open but also a specific therapy was found, namely, the transplanting of the thyroid gland from animals or feeding with thyroid extract. This was suggest-

(*) *Clinical Society Transactions*, London, Vol. VIII, 1894.

(**) *Medico-Chirurgical Transactions*, London, 1877.

(†) *Langenbeck's Archiv.*, Vol. 29, Berlin, 1883.

(††) *Revue Medicale de la Suisse*, 1884.

ed by von Eiselberg (‡) in 1890 as treatment of cachexia strumipriva after operation, but it was also successfully applied by others in the other forms.

Just as interesting as the eventful history of the disease is the symptomatology. We differentiate as I have already mentioned:

1. Congenital or infantile form: "cretinism."
 - (a.) Sporadic.
 - (b.) Endemic.
2. Acquired form.
 - (a.) Caused by total operative removal of the thyroid gland called "cachexia thyreopriva or thyroid-ectomica."
 - (b.) Caused by disease of the thyroid gland "Myxœdema or cachexia thyroidea."

The common symptoms of the affections concern first and mainly the skin, then the temperature of the body, and the mind. The skin shows the most characteristic symptom—an œdema of a very peculiar kind. It is solid and takes no impression from the finger, as the dropsical œdema. This myxœdema is more or less general over the whole body. I omit the chemistry of the œdema because it would take too much space for a short sketch. The skin is dry and rough, the hair thin and falling out. The temperature is low. Even degrees of 77 and 66 Fahr. were recorded in some cases before death. The mental symptoms are slowness of comprehension, slow speech and clumsy gait. In the congenital or infantile type, "cretinism," mental development is arrested. These are only the main symptoms of myxœdema which we will follow up on a case I have at present under observation. As far as I can learn there are about 350 cases of myxœdema on record, the most from English authors. I do not believe that there are many observations of the

(‡) *Ueber Tetanie im Anschluss in Kropfoperationen*, Berlin, 1890.

kind in Michigan (##). Therefore I believe the following case worthy of publication:

I saw the patient first on Nov. 11, 1901. Dr.-H. Graham, of the Detroit Sanitarium, consulted me about the large swelling of the patient's left hand, which would not yield to any treatment. I took on that day the following anamnesis and status of the case:

G.—B—, 54 years old, a native of Switzerland; has been 21 years in America and nearly all this time in Detroit. In his family history nothing of any reference to the present condition. Forty years ago dislocation and fracture of the elbow; spring of 1900, dislocation of the shoulder; had gonorrhœa, no syphilis. B— noticed some swelling of feet 6 years ago. Three months ago noticed a swelling on the second and the third finger of the left hand, which soon extended over the whole hand, and caused great neuralgic pains during the night. He stated that he felt well otherwise and noticed no alterations of his mental power and memory. His only complaints were the pain he felt in the swollen hand, especially during the night, and also some numb feeling in the swollen fingers.

He is a small man, 5 feet 2 inches high; weight, 135 pounds;—left elbow disfigured by old luxation and fracture, but free in motion. The left hand shows a soft swelling, especially in the palm, the finger sausage-shaped.

The swelling of the skin is soft, elastic, does not retain impression of the finger and extends up two inches over the wrist. The right hand shows the same swelling in lesser degree; the legs are swollen mainly in the lower third, skin all over the body seems thickened in the subcutaneous tissue, it is dry and scales somewhat. Cheeks swollen and do not

move in speaking, whistling, etc. Eyelids also swollen, particularly the lower ones, which hang down like a sac. The whole face is without expression on account of the swollen and immovable skin; slight exophthalmus increases this stupid impression. Pupillary reflexes are slow. Patella reflexes hard to produce and slight pressure on the arm nerves, especially on the left ulnaris, very painful. No swelling of tongue; teeth defective. Temper., 97; pulse, 84; Heart, not abnormal; Lungs, normal; Urine, Spec. gravity, 1.007: no albumen; no sugar. Large double-sided scrotal hernia. Thyroid gland not palpable, although one can feel very distinctly all other details of larynx and trachea.

(The blood examination, (*) I am sorry to say, was only made after some thyroid extract had already been given and it did not show any abnormalities.)

The symptoms leave no doubt about the diagnosis. The peculiar swelling of the skin; the low temperature, which went down to 94 in the course of observation, are sufficient to warrant the diagnosis of myxedema. The case offers the usual symptoms, the only peculiarity consisting in a very prominent swelling of the left hand, so that it attracted attention first here and appeared like a tumor. Further the volar side of the left hand was far more affected than the dorsal. The opposite is recorded in most of the cases in the literature.

The influence of thyroid extract on which the patient was put was most remarkable and interesting. Twenty-four hours after beginning to take 2½ gr. of thyroid extract the otherwise subnormal temperature rose to 101°; the pulse to 120; also a slight enteritis (colic pain, diarrhœa) appeared. After stopping the drug, pulse and temperature dropped immediately from 120 to 64 respectively, from 101 to

(##) At the meeting of the Detroit Medical Society of Jan. 8, 1902, Dr. A. W. Ives mentioned a case of cretinism observed by him in Detroit several years ago.

(*) Dr. Thaddeus Walker, Clinical Laboratory, Detroit.

subnormal, down to 94. The same changes could be produced again by giving and stopping the drug. Patient now takes regularly 5 gr. thyroid extract three times a day and this keeps his temperature and pulse nearly normal. If I may tabulate this peculiar affect of thyroid extract:

	Temp.	Pulse.
Nov. 11	96 2-5	84
" 12	97	80
" 13	99 2-5	96 Thyroid ext.,
" 14	101	120 2½ gr.
" 15	101	120
" 16	98	64 Drug stop'd.
" 17	96 2-5	64
" 18 A.M. 94 3-5	70	
" P.M. 94	68	
" 19	95 4-5	72 Thyroid, 3 gr.
" 20	97 2-5	60 Thyroid, 6 gr.
" 21	97 3-5	72

The very low temperature of 94 on Nov. 18 existed without any alarming symptoms. Patient felt very well and was out of bed in spite of low temperature. After the patient took thyroid extract for about 2 months with the noted short intermissions for the diagnostic purposes: the swelling of the skin was reduced remarkably; the circumference of the left hand went down from 9 to 8 inches; of the 4th finger from 4 to 3 inches; of the leg, from 11 to 10¼ inches, measured always on the same places. The temperature remained 97° to 98° and did not go to 94° in 5 weeks; that is, three weeks after commencing treatment. There was also some improvement of the slow speech and lazy gait.

In conclusion I wish to say a few words about the interesting questions as to the pathology of the thyroid gland. Our case shows what total extirpation of the thyroid gland will do and many experiments on animals have proved that sickness, or removal of the gland causes serious disturbances in the body; first, nutritive changes in the skin (myxœdema); second, low temperature; third, alterations in the mental sphere. It is hard

to say which disease of the thyroid gland causes the myxœdema in our case. To judge from palpation the gland was very atrophic. Post-mortem examinations in similar cases have generally revealed a kind of cirrhotic condition of the glandular tissue. As to the therapy, we saw also in our case that the introduction of thyroid extract into the affected body abates all the symptoms of myxœdema. But thyroid extract is a powerful remedy; as was shown by the reactions of temperature and pulse in this case. It should be given always in slowly increasing doses under careful observation of temperature and pulse.

271 Woodward Avenue.

Fracture Suggestions.—

Never apply a plaster splint to a compound fracture.

Treat the lacerations and contusions antiseptically.

The bandage is so applied that while holding the bones, it does not cover the laceration.

It is a good rule to unbandage a fractured limb every two to five days, particularly a compound fracture; then wash and rub the limb thoroughly.

Ununited fracture comes more frequently from circulatory stasis than from movements of the fractured ends; then do not be so dreadfully afraid of possibly breaking adhesions when the splint is carefully removed.

A little massage will quickly compensate for a trifle of disturbance of the fractured ends.

If pus should form, use calcium sulphide and echinacea, or ichthyol; keep bowels free and apply H²O², ichthyol, etc., locally.

Every traumatism has its medical as well as surgical aspect; that's what's the matter with the man of one idea; the surgeon.

Above all, call frequently upon your fracture cases; and if they want the dressings or splints altered, try to oblige them, for that is what they pay you for.—BOYNTON, in *Medical Journal*.

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

WALTER C. BOYNTON, Manager.

ISSUED BY—

THE DETROIT MEDICAL JOURNAL CO.,

Note.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, to 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., JANUARY, 1902.

COMMERCIALISM NECESSARY IN MEDICINE.

No other class of men is less well rewarded for a life of devotion and self-denial than are the medical men of the age. Out of the one hundred twenty-five thousand doctors in the United States, how many are there who make and save money? Men following other and less arduous pursuits are enabled to retire at the close of a business career with sufficient property to enable them to live in comfort and sometimes even in luxury till the end of their days; but the physicians who can do this are very few.

Unfortunately for the physician, the medical profession seldom sees combined in its members the two factors of ability as a practitioner and ability as a business man. This can undoubtedly be accounted for to some extent by the fact that the true doctor gives himself up to his work of healing, thinking little of the matter of recompense for his services. Commercialism does not easily develop in harmony with medical achievement. Our best physicians and surgeons must be men with a scientific bent and the very thing that makes them successful in the practice of their profession takes away from the practical business side, so necessary to the material success of the medical man.

How many physicians are there who collect their fees with the same regularity that the merchant uses? Not many.

Why has not the doctor the same right to his pay that the business man has to his? Some physicians say that the merchant has already bought and paid for his goods and therefore has to be reimbursed in order to carry on his business. Very well. But the physician has also bought and presumably paid for his education and his equipment, the means by which he is enabled to carry on his profession. He is entitled to reimbursement for his outlay, if the only commodity he has to offer,—namely, his services—is worth receiving.

The doctor who is a poor collector does not appreciate his own services at their full value and under such circumstances he must not expect a great many of his so-called "patients" to appreciate them, either. The physician, on the other hand, who has enthusiasm and strong convictions that he is fully conversant with his profession and must be paid for what he does usually gets his fee and with it the respect of the community. Only in this way can he obtain the means for carrying on his profession. In these days of elaborate equipment for physicians and surgeons, the new devices and inventions constantly being brought into use, considerable outlay is required for a practitioner who wishes to be thoroughly modern; and there is no reason why he should not be paid proportionately for the increased value of the services he is able to render with proper equipment. It is found that the physicians who send in their statements promptly on the first of the month or as soon as their services are no longer required—owing to the recovery (or death) of the patient—are successful men who are able to enjoy every advantage that prompt payment of their own accounts brings.

The medical man who is "too easy" has to go without the money he needs for a post-graduate course or for a change of scene—and nothing is better for a physician than to get away from home and his

"chronics" for two months out of the twelve if he can afford it. And in the majority of cases he cannot afford it unless he has collected the money due him from his patients.

Experience has taught the physicians that it is best to respectfully demand their fees within a reasonable time for services rendered—and a reasonable time can be determined by the customary time extended to the physician himself, when he wishes to make purchases.

Why should physicians give two to five years' time and then ask for their money when other people demand their pay from the profession at 30 or 60 days? A reasonable theory to go on is that if there is any patient of the class ordinarily described as a "dead beat" he won't pay at the end of any time, however generously extended, and the physician is just so much ahead by finding out early the patient's unwillingness to pay, saving himself time and a possible waste of medicine. There is a certain class of men who can and do pay small bills, but can't and won't pay large ones. Every physician has probably had patients who have owed them large bills and are then ashamed to send for them in time of illness, preferring to consult a new man. This is only one of the bad results of over-kindness on the part of the physician. Every practitioner has some charity patients; but it is much better to know in advance that the services rendered are to be set down to charity.

THE RISE OF THE SPECIALIST.

In every branch of modern professional occupation, the tendency toward specialization is becoming more and more clearly marked. Lawyers now have a special practice, engineers are announced as experts along some certain line, and the modern physician and his brother the surgeon are shining examples of the same condition. Oculists, of course, have been established in practice for many years;

but the aurist, the nose and throat specialist, the specialist who performs only certain operations—these are comparatively new-comers into the special field. A walk through any one of the office buildings in which the modern practitioner of medicine or surgery loves to locate shows clearly enough the fact that the specialist is abroad. On every door there is a sign that calls attention to the fact that the man of medicine inside is ready to do a certain class of things better than the "general practitioner." If specialization keeps on much longer, and assumes greater proportions, we shall have no general practitioners left.

Specialists are of two classes—those who begin their medical career with the intention of devoting their entire attention to the practice of one particular branch of medicine or surgery and those who take up a specialty later in life. Of the two, the latter class is the more numerous and as a general proposition its members are better men. This is explained by the fact that the specialty practiced by them is the result of careful selection, based on experience of what branch of practice is best adapted to their individual temperament. Men who have, for example, met with unusual success in abdominal sections may justly feel that it is to that branch of surgery they should give their entire attention. The work becomes absorbingly interesting to them, for the reason that it is the work of all that they love best; and they are willing to give their very best to it. Specialists, on the other hand, who begin the study of medicine with the idea of taking up one special branch have not come to the determination of what branch they will devote themselves to by a careful observation of what they are best fitted to do.

Special practice presents many attractive features, not the least of which is the size of the fees which can be demanded and obtained. There is practically no limit to the size of the fee that can be

charged for a difficult operation, or for a successful special treatment of some malady. It may seem that the limiting of the practice would also limit the number of patients; but this does not seem to be the case, judging from the number of people waiting in the reception rooms of specialists. Then another feature of special work is the practical certainty of securing the fee. Few people come to consult a specialist without realizing that they are getting expert advice and being therefore ready to pay for it. Expert knowledge is a commodity whose worth is recognized; and while the specialist may have some charity work to do, this branch of his occupation occupies a relatively small place.

There can be little doubt that the rise of the specialist is of benefit to the profession. It puts a premium on expert knowledge, to begin with, a fact that will certainly accrue to the profession's advantage. It obliges other practitioners to devote their time to the development of some special branch of practice,—in self-defense. The time will come when the whole field of medical and surgical research and work is covered by a comparatively small number of physicians and surgeons, each an expert in his line and each confining his practice to one branch only. When that time comes—and it may be some time before the millennium—the profession will cease to be overcrowded. And that ought to be a prospect to make the heart of every physician rejoice.

ECLAMPSIAS.

The sight of a person in convulsions is generally terrifying to the laity who immediately, with few exceptions, go "off their heads;" and yet, in the great majority of instances the victim is in no immediate danger. Whether or not the convulsion foreshadows a serious ending depends upon a variety of causes. As a

rule, the seizures are more serious in adults than in very young people with whom the activity of the seizure is usually in inverse ratio to the pathological lesion determining it.

Two requirements are essential to eclampsias: First, an unstable or unbalanced condition of the nervous system—the predisposing cause, and: Second, some factor sufficient to disorder the weakened nerve centres. The instability of the nervous system is more pronounced in children than in adults, and seems often to be hereditary—members of certain families being more prone to "fits" than others.

Again, certain chronic diseases of nutrition, such as rickets, are associated with an irritability of the brain and the spinal cord, and convulsions are peculiarly frequent in children suffering from such disorders.

Convulsions are also very common in the young at the onset of an acute fever such as scarlatina or measles. At that time no special significance obtains thereto, but when they occur later, and especially during an attack of scarlet fever, they may point to the existence of kidney disease. In whooping cough convulsions are sometimes induced by reason of insufficient aeration of the blood, owing to partial collapse of the lungs.

But, convulsions in children are, perhaps, most commonly the result of some disorder of the digestive tract, due to the presence of indigestible material in the stomach or bowels, or of intestinal worms.

Inflammation of the ear is another common exciting cause; but teething, which by the laity is blamed for so many "fits," very seldom is the cause at fault unless the eruption is exceedingly difficult and painful.

As in adults, so in children convulsions may be due to hysteria or to epilepsy; or they may be provoked by a great shock to the nervous system, such as

severe fright. Meningitis or cerebral tumors are also potent causes, in patients of all ages.

Whatever the cause, so far as youth is concerned, it is always safe to put the child into a not too hot bath—say at a temperature of about ninety-six (96°) or ninety-seven (97°) degrees. Nerve sedatives are also, usually, prescribed in the hope of preventing a recurrence, but first of all, if the cause can be discovered, its removal is imperative.

EDITORIAL NOTES.

American Tuberculosis Congress.—

This association is announced to hold its third annual session in New York City this year on May 14th to 16th, inclusive, meeting jointly with the Medico-Legal Society. Six sessions for the transaction of business and the presentation of ideas will be held in all, with no evening session except on May 15th, when the annual banquet is to be held. In view of the fact that a large number of visitors from out of the state is expected, the committee thought it best to dispense with night meetings, leaving the evenings free for the amusement and entertainment of the delegates.

Four symposia have been arranged, each one dealing with some aspect of tuberculosis control, and in charge of a special committee appointed for the purpose of arranging the opening paper and the sequence of reading. Many of the members on the roll last year have announced the titles of their papers and a larger number have sent to the secretary the announcement that they would present papers, titles to be announced later.

The plan is to constantly increase and widen the sphere of the Congress, and already six governments have named their delegates, while a large attendance from the Dominion of Canada is assured. The enrollment of the society is open to members of both the medical and the legal profession in every governmental

division in the western hemisphere and in American waters and papers have been arranged for, to be presented by representatives of the foreign countries interested in the combat of tuberculosis.

The four symposia, referred to above, will be as follows:

1. "Preventive Legislation, Embracing the Social, Municipal and State Aspects of Tuberculosis."
2. "Tuberculosis in its Pathological and Bacteriological Aspects."
3. "The Medical and Surgical Aspects of Tuberculosis."
4. "The Veterinary Aspects of Tuberculosis."

Confession is Good for the Soul.—

Dr. John C. Munro, of Boston, in a recent paper read before the Harvard Medical Society of New York City, spoke with some feeling on the fact that many abdominal sections performed were needless. This statement was followed by a description of several operations, performed both by himself and other practicing physicians, in which, when the abdomen was opened, nothing requiring surgical interference was found. This action on the part of Dr. Munro speaks well for that gentleman's rectitude and high feeling; but many of the profession will doubtless feel that his statements were in a measure unwise. Among the operations mentioned by the doctor was the following: "The patient, a woman of questionable character, while under the influence of liquor, fell into the hold of a vessel in the harbor. The symptoms presented were those of some acute abdominal condition and, as the fall had been a serious one, the suspicion was aroused that a rupture of the kidney might have taken place. The abdomen was opened but absolutely nothing traumatic was found. After the operation, it was discovered that the patient, besides being alcoholic, had the morphine habit. By withdrawing the drug almost any train

of symptoms could be induced. The patient recovered without incident."

At the same meeting, reports were given of other operations that proved needless. For instance: "Some years ago Dr. Brewer saw a patient who had suffered from pneumonia in which the crisis had come on the sixth day. The temperature had been normal for nearly a week, when acute abdominal pains developed with a temperature of 102° F. and a pulse of 100. There was a history of four or five previous attacks and there was localized tenderness in the region of the appendix. The next day the abdomen was rigid and the pulse and temperature had both risen. It seemed certain that the patient was suffering from appendicitis and two consultants who were called agreed with this diagnosis. The patient was considerably run down as the result of the pneumonia, however, and the fulminant character of the apparent appendicitis had still further sapped his strength so that operation seemed hopeless. There was great distention of the abdomen and there seemed to have been a perforation in the appendix. After death it was found that there was no intra-abdominal lesion. The patient's condition was due entirely to a pneumococcus septicæmia with tympanites from distention of the intestine because of peristaltic paralysis. Dr. Brewer has seen three or four of these cases in which general sepsis simulated very closely intra-abdominal conditions."

The danger of the uterine tamponade, usually considered a simple and safe method of inducing labor, was pointed out at this "experience meeting," in the following statement: "Dr. Coe detailed his recent experience with a case that pointed out to him a hitherto almost unsuspected danger from tamponing the lower segment of the uterus to induce labor. The patient was a woman in wretched health, a multipara, for whom it seemed desirable to bring on premature labor. She was given a few whiffs of chloroform and about two yards

of gauze were packed into the lower segment of the uterus. At the time of the tamponade it was noted that the placenta bruit was loud. It was concluded that there was a low implantation of the placenta. A couple of hours later there was a sudden gush of blood. Most of the gauze was removed and the haemorrhage ceased somewhat; though the patient did not suffer from ordinary labor pains, there were contractions and cramp-like pains that were more distressing. The foetal heart sounds were distinct. After a time the haemorrhage recommenced and continued so that there was an anticipation of premature separation of the placenta. Dr. Coe summoned assistance and made a rapid delivery with the high forceps. There was considerable bleeding, at least twenty ounces of blood being lost. It was found that the placenta had been detached over one-half its area and that this was undoubtedly the cause of the bleeding. After the delivery examination of the uterus showed the presence of a sessile intra-uterine fibroid. The course of the case since delivery has been normal. The child is perfectly well. It seems certain that the insertion of the gauze into the uterus was the occasion for the detachment of the placenta. Either the placenta was directly pushed away from the uterine wall by the gauze, or at least so much pressure was made upon its lower edge that the first contraction of the uterus caused its detachment. If delivery had been delayed in this case there seems no doubt that both lives would have been lost. This case shows one of the dangers of the gauze tampon, and indicates the necessity for determining if possible whether there is a low implantation of the placenta at the time of tamponing."

Aconite.—This drug is always indicated when the pulse is small, frequent, and easily compressed.—(FELTER).

Book Reviews.

A Text-Book of Bacteriology. By George M. Sternberg, M. D., LL.D., Surgeon General United States Army; Ex-President American Medical Association, and of American Public Health Association; Member of the Epidemiological Society of London; of the Royal Academy of Medicine of Rio Janeiro; of the Societe Francaise D'Hygiene, etc. 8 vo. Cloth, pp. 708. Illustrated with Heliotype and Chromo-lithographic Plates and 200 Engravings. Second Revised Edition. William Wood & Co., Publishers, New York, 1901.

Surgeon General Sternberg's work is one that must prove of value to the student in the laboratory, presenting as it does so much that is valuable in a clear and easily understandable manner. And it will be found of use also by advanced students and practicing physicians, showing as it does a representation of our present state of bacteriological knowledge. Large type is used in speaking of the pathogenic bacteria and bacteriological technology; and the non-pathogenic bacteria, with the less important or imperfectly described pathogenic bacteria are treated in small type. The work is thoroughly modern, practical and valuable.

Practical Medicine. By F. Mortimer Lawrence, A. M., M. D.; Cloth, 8 vo.; pp. 520. Price, \$3.25. Boericke & Tafel, Philadelphia, 1901.

This work is intended more particularly for students; nevertheless it presents a great deal of material which will be found valuable for quick reference by advanced workers:—it sets forth concisely those fundamental facts that are requisite to the successful practice of medicine. Pathological symptoms rather than the details of morbid anatomy are defined with the hope of correlating the symptoms of disease to the underlying changes. In connection with diagnosis the more improved methods have been included and each section is by a brief resume of the essential points to be determined by interrogation of the patient and of the physical methods by which examination should be conducted.

As a whole it is a very complete, practical work, one we can heartily recommend.

The Science of Therapeutics. By Bernhard Baehr, M. D.; Half Morocco, 2 vols.; pp. 635 and 752; Boericke & Tafel, Philadelphia.

This is a work of no ordinary merit, translated by the veteran Doctor Charles J. Hampel, who has not only represented the author with fidelity but also added large sections from Kaf-

ka, as well as a number of new remedies. As a whole, it is the most complete and concise exponent of Homœopathic Therapeutics we have seen, and in these days of "Isopathy" the claims of our brethren of the similia cult are not to be ignored: Indeed, we have borrowed from them extensively, not always however, we regret to say, giving the credit that is their due. The work as a whole will prove of the utmost utility to any and every practitioner, regardless of therapeutic belief. A careful perusal will reveal many explanations and side-lights on the action of numerous drugs that are now generally deemed erratic or obscure, for example, the similarity of action on the part of copper and lead with reference to the spinal cord.

The first volume is divided into six sections embracing eases of the brain, the spinal cord and of the nervous system generally; diseases of the head; of the mouth; fauces and œsophagus; of the stomach, intestines and peritoneum; of the liver, spleen and pancreas; of the uropoetic system. Volume Two: Diseases of the sexual organs; of the respiratory apparatus; diseases of the circulatory system; derangements of the single system, and constitutional diseases.

Clinical Hematology. By John C. DaCosta, Jr., M. D., assistant demonstrator of clinical medicine, Jefferson Medical College, Hematologist to the German Hospital, etc. Cloth, octavo; pp. 474. Price, \$5.00. Published by P. Blakiston's Son & Co., Philadelphia, 1902.

Advance sheets of this publication have been sent out by the publishers for examination. The author's preface sets forth the purpose of the book, which is to "interpret the blood report according to its true value as a clinical sign, neither exploiting it as a panacea for every diagnostic ill, nor belittling it because of its failure consistently to give the sought-for clue in every instance." The data to which reference is frequently made in the text are from the records of the Pathological Institute of the German Hospital, where accounts of all blood examinations have been kept for the past six years. Other data are furnished from the author's personal experience, and in all about 4,000 reports on blood in various pathological conditions are given. Specimen pages of the work submitted show large type, wide margins, good paper and a generally attractive and substantial appearance. The illustrations seen are clear-cut and workmanlike, with several representations of blood under the microscope. In the completed volume there will be

eight full-page colored plates, three charts and forty-eight other illustrations. Its value to the profession cannot yet be judged, but the author is a physician of reputation.

The Diagnostics of Internal Medicine. By Glentworth Reeve Butler, A. M., M. D., Chief of the Second Medical Division, Methodist Episcopal Hospital; Attending Physician to the Brooklyn Hospital, etc., etc. With five colored plates and two hundred and forty-six illustrations and charts in the text. New York: Appleton's, 1901.

This work is written from the standpoint of its value in practical work in the clinic. Dr. Butler has divided the work into two parts, the first setting forth in clear and simple fashion the general principles of physical diagnosis. In the second part, diagnosis of the individual disease is treated. There is a valuable section on blood, sputum and urine analysis, and the whole work is well illustrated with plates and diagrams.

New Instruments and Devices.

AGATE NICKEL-STEEL.

"Agate Nickel-Steel" ware is something out of the ordinary in material for sick-room supplies. Articles like commode chamber-pails, for example, are made of sheet steel which is pressed into shape, afterwards being coated with nickel and then with a double coat of vitreous enamel. The nickel forms a clinch between the pressed steel and the enamel and the result of the union is a vessel of great resisting powers. The goods are thus made strong and durable, yet owing to the lightness of the material used they are no heavier than weaker vessels. The enamel surface permits rapid and easy cleansing, an unquestioned advantage in the sick-room or the laboratory.

This ware is manufactured by a well known company, and one of their specialities is an odorless commode chamber pail. The cover fits onto the body of the vessel very tightly and is held securely in place by a rubber gasket, made perfectly tight by a lever handle which can be readily released at the proper time. The strength of the material composing these vessels and their absolute closure makes them specially well adapted for use in asylums.

POCKET DOSE BOOK.

Pocket Dose Book. Compiled by John Edwin Rhodes, A. M., M. D. In this little volume of less than fifty pages, Dr. Rhodes has set down the dose to be given of about 1,000

remedies. The list of remedies is arranged alphabetically, and the dosage is given both in terms of apothecaries' weights and measures and in metric terms as well. In this particular edition of the dose book, several remedies have been added to the list, considerably increasing the number, and some items for ready reference on subjects of interest to the profession have been inserted also.

PURITAN LAMP.

Acetylene gas as a means of illuminations has become more and more popular recently owing to its introduction on passenger cars by some of the railroads and also owing to the fact that the properties of the gas are becoming better understood, with a consequent lessening of danger from its use. One of the latest methods of using the gas for illuminating purposes is the Puritan gas lamp, which is said to be a revelation to physicians, for whom it is specially made. The light itself is produced by a simple charge of water and calcium carbide, which costs about two cents. The solid can be bought nearly everywhere, nowadays.

By an ingenious arrangement, the lamp can be lighted immediately after being charged and it can thereafter be repeatedly lighted, the generation of gas being perfectly automatic. The flame is controlled by a key similar to those in use on the ordinary gas burners, but the lamp itself possesses advantages over those burning the commercial artificial gas, being free from the objectionable flickering, smoke and smell of the better known article. The flame itself is white, and of great brilliancy. There is scarcely any lateral or reflected heat from the lamp—something specialists will appreciate—and objects viewed in the light from it appear in their own natural colors.

The Puritan lamp is mounted on a standard like a student lamp, but is readily detachable, so that the lamp may be used anywhere. Standard condensers can be used with this lamp. Its size is 3x5 inches and its weight 15 ounces. It retails for \$9.00.

RED CROSS SPRINKLER.

The accompanying cut illustrates one type of the Red Cross Formaldehyde sprinkler, a device which has recently attracted considerable attention, particularly in sections where contagious disease "scares" have given rise to general disinfection. The method of using the sprinkler is simple. The bottle is filled with a 40% solution of formaldehyde, the metal cap is taken off the bottle and the metal cap with sprinkler and goose-neck attachment is put on

in its place. With the bottle held in the left hand and the forefinger on the automatic valve on the cap, the flow of the disinfectant is readily controlled by pressure on the rubber bulb. The bottle in the size illustrated contains about 22 ounces of the liquid and five ounces are sufficient to spray a sheet that will disinfect an air space of 1,000 cubic feet. The device is manufactured by a Chicago firm, which makes several sizes, suitable for physicians, undertakers and other men whose apparatus for disinfection must be compact and easily portable.

The claim of the manufacturers is that the device is much more simple in its construction than is the case with the majority of other machines on the market, while the work done

maldehyde were used per 1,000 cubic feet and the rooms of the house were exposed to the influence of the gas for eight hours. An outfit for the physician costs \$4.00.

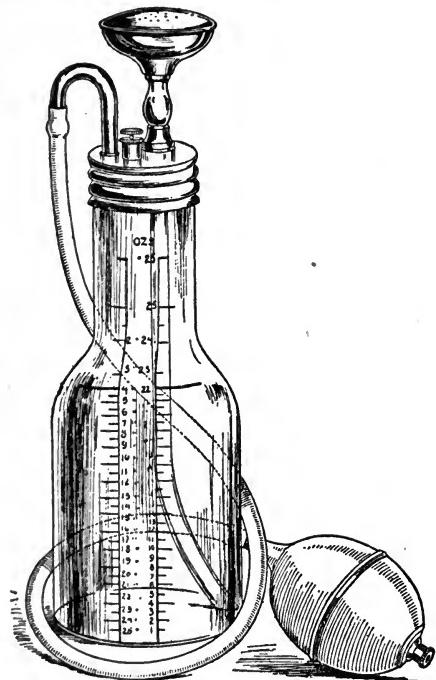
Electrically-lighted surgical instruments are not entirely new, but some of those already in use possess features that the users of them wish did not exist. For example, in many of the lamps in use on exploration instruments, the amount of heat thrown out is so large that some cooling device must be employed to secure the comfort of the patient. It is now claimed that a lamp has been devised and put into use in connection with surgical instruments, which is practically heatless. The manufacturers of this lamp claim for it that it can be utilized as the bulb of a bougie, the lamp itself giving out practically no heat. The instrument itself can also be used as a general diagnostic lamp for all ordinary purposes.

Another device, of special interest to the gynaecologist, but also of use to the profession in general is the vaginal speculum, which is said to give a perfectly illuminated field under all conditions. The instrument carries a heatless electric lamp between the blades, in such a position that no misleading shadows are cast. The lamp itself does not need to be removed, owing to the fact that no liquid affects its efficiency; in cases of haemorrhage, it can be removed easily without disturbing the position of the speculum, washed and replaced.

By means of the speculum the os Uteri can be brought into perfect view under the rays from the lamp and there is no obstruction which can be interposed. The speculum itself is built on such lines that it can be taken apart without difficulty and sterilized with great ease.

THE VIBRATILE.

The Vibratile.—One of the latest things in mechanical to be made use of in the field of medical treatment is the "Vibratile," an instrument designed for the purpose of giving mechanical massage. The masseur itself consists of a curved receptacle, shaped so as to conveniently fit the hand and containing an induction coil. The coil acts on a metal vibrater, moving laterally and with a speed, to be varied at the will of the operator, from 500 to 3,500 strokes per minute. The vibrater is protected



by the Red Cross is as efficacious in its nature as that performed by more elaborate means. The firm has issued literature containing full directions for using the machine, and also suggestions as to how to prepare a room or a car for disinfection. It is noteworthy that the board of health of Chicago has adopted the device for use in the city hospitals and other public places requiring disinfection. In one experiment, figuring on the results obtained by the use of pure formaldehyde gas, spontaneously evolved from the machine, staphylococci bacteria (dry specimens) were destroyed, no growth being obtainable from any of the slides used. Pure staphylococcus was obtained from the control. In this experiment, 125 c. c. for-

and surrounded by a loop of metal, which prevents injury to the patient. The treatment can readily be localized, owing to the size and shape of the loop which surrounds the masseur itself.

The whole outfit—battery, switchboard and Vibratille, weighs about ten pounds, so that the apparatus is easily portable, even for quite long distances. The entire outfit retails for \$25.00, and with the battery and carrying-case omitted, \$18.00. The plan for selling the apparatus in this way is to make it comparatively easy for the practitioner to keep a massage outfit in his office. Four dry cells in a series are recommended as a means for furnishing power to the device. The use of massage as a means of alleviating human suffering is, of course, very ancient, and the appearance of this device will probably go far too making it popular with physicians, as a means of treatment for their patient.

ope a surgical hand; he must have been assistant to a first-class surgeon for at least a year, where he will see hundreds of operations of various kinds. Such a man may be a good surgeon. He ought to be in some large town, say a county seat, and, as his surgical practice grows, he should give up absolutely general practice, devoting himself to surgery exclusively, and then his colleagues in the county would support him.

Hence the requirements of modern surgery are: (1) A patient brought to the highest state of resistance to microbic infection and made as clean as possible; (2) an operating-room, preferably in a hospital, where everything has been made thoroughly sterile; this includes anæsthetizers, assistants and nurses; (3) a surgeon who has a mechanical hand and has received a long and thorough training.—(DR. J. H. CARS-
TENS, in *The Medical News*).

Notes and Comment.

The Gospel of Cleanliness.—"If you ask what is modern surgery, I would answer that it is the gospel of cleanliness—that covers the ground. Here the problem presents itself and also the difficulties, and here are our failures manifested because of the utter impossibility of absolutely preventing infection in every case.

(1) The great point in connection with successful surgery is the individual to be operated upon. We have minimized the chances of infection of the individual himself, so that, as far as the patient is concerned, we are able to get the site of operation reasonably clean.

(2) The patient is clean, but you cannot operate on his unclothed body. The patient must be covered—kept warm in fact. We insist on absolute sterilization of everything touching the patient, of everything that is in the operating-room; this includes tables, chairs, basins and bowls, and everything that may be used. Considering all these points about the requirements of modern surgery, I believe it to be utterly impossible to carry out modern aseptic surgery in a private house.

Finally you will ask me, "Who could or should be a surgeon?" and in answer I will say that he must be a well-educated physician, must have been a general practitioner and a good therapeutist. He must take up surgery early and gradually devel-

The Doctor and His Bill.—"The physician himself is at fault for the remissness of his patrons in paying their dues. Indeed, our profession has been brought under contempt through the adage, 'As hard to collect as a doctor's bill.' Tradesmen are promptly paid the entire amount of their bills. The doctor would be, too, if he would only put up a little fight for it; but, without a particle of business insistence, with childlike timidity, he humbly submits, without protest, to being paid at any odd time, in a haphazard way, at long intervals, and then, usually, only a part of his bill, instead of the whole of it. Eventually, payments become more and more remote, while the amounts at each payment dwindle in proportion."—(DR. G. A. PATTON, in *North-western Lancet*).

[That's right, doctor, and sounds like sound sense. We need more insistence among the profession.—Ed.]

Morphine in Porto Rico.—Morphine is used extensively in the town of Juana Diaz, Porto Rico. It is estimated by the insular Board of Health that out of the 2,500 inhabitants 1,000 are victims of this terrible habit.—(*Exchange*),

Women Students of Medicine.—The number of women students of medicine in Berne is 190; men students, 174. In Geneva 168 women and 183 men are pursuing medical studies.—(*Exchange*).

The Nicaraguan Climate.—“It is the testimony of disinterested observers that both coasts of Nicaragua are malarious with a considerable amount of suffering from malarial cachexia and enlargement of the spleen. Dysentery is one of the severe diseases of the country. A prevalence of fever of the pernicious type has been noted, particularly in the western portion of the country. The fever is generally hepatic and jaundice and hematemesis are usually present. The mortality from pernicious fever is very high. As this disease carries so many of the characteristic symptoms of yellow fever, Stitt declares that able physicians frequently pronounce the two diseases to be identical.

“As to the forms of disease most commonly met with, Griswold says that four-fifths of all sickness at Panama are due to fevers. Severe bilious fevers, congestive fevers and Chagres fever are not uncommon. According to Buel, the most sickly period is September, October and November, during which time dysentery is very common, as is also a high degree of bilious fever which, in malignity and fatality, falls little short of yellow fever. Foreigners seldom, if ever, acquire the same immunity from local diseases as that enjoyed by the natives; they are frequently attacked by febrile disorders and in the interim suffer from the depressing and debilitating effects of the climate. In March, April and May fevers are at their minimum. Dysentery is common at the end of the rainy season and at the beginning of the dry season. Phthisis is prevalent among the natives, especially along the coasts. According to Wallis, smallpox, yellow fever and paludal fevers in their infinite varieties and forms are never absent in these inter-tropical regions where they are truly endemic. Nelson, after an experience of five years at Panama, gives his approval of the statement long made with reference to the Isthmus, that it is the “Grave of the European.” It has also been called the “Pest House of the Tropics,” and Bigelow says that here truly “Life dies and death lives.”—(DR. GEORGE A. SOPER, in *The Medical News*).

Maryland Child-Mother.—Dr. L. M. Allen, in the *Maryland Medical Journal*, reports the case of a colored girl, eleven years of age, whose menses first began at the age of ten years and three months. Conception took place at ten years and eleven months,

and her child was born at eleven years and eight months. The labor lasted a little over fourteen hours, and the placenta was removed artificially one-half hour after the birth of the child, which was developed in every respect, and weighed 3,265 grammes. A peculiar feature of the case was that the labor was attended with very little real or apparent pain, the little patient seldom uttering a sound during the entire labor, even while the head and shoulders were emerging.

[Dr. Allen, though presumably a Southerner, has failed to apply for a law suppressing the child-mother. The rapid increase of the negro is accounted for at last.—Ed.]

Eyesight and the Teeth.—“Miss M., a trained nurse, came to me complaining of eye trouble at the same time that her teeth required attention. Her eyes troubled her a great deal, but she had me treat her teeth (canines) on general principles. I removed the nerves from these, treated the canals antiseptically, and filled them in a suitable manner with the proper material. Her eyes improved during treatment, at the completion of which she laid aside her glasses as useless, and has not required them since. She attributes her ocular improvement to the dental treatment, without suggestion on my part, and I agree with her.”—DR. ALICE JARVIS, in *Philadelphia Medical Council*).

Oh, Doctor!—Dr. J. M. Carlton, of Wet Glaize, Mo., reports the following somewhat extraordinary case: “Mrs. J.—primipara, aged 21. Normal labor, expressed fear child would be marked, as she had seen a hare-lip girl two months before, and was greatly shocked at the sight. Also husband had a mule that had large bloody wart on its leg. At delivery, as the child passed over my left hand, I felt something like a piece of intestine. I made a very hasty examination, and found what at first appeared to be a loop of the intestine protruding from the lower lumbar vertebra. A closer examination showed me it was a sac about five inches long by two wide. Not wishing to excite the mother, I did not examine it closely.

The next day a messenger came for me to “come down and open that bag,” as it had filled up, and was causing the child to be very fretful. When I arrived at the house I had the baby taken to the door and wha-

was my astonishment to see, instead of the empty sac, a well-developed head, about as large as a large orange.

The neck was too short to be seen. A large scar ran from outer corner of left eye, and terminated with right ear. The scar was slightly elevated. There was no sign of left ear. Right ear was merely a scar, in shape of ear. The head had neither eyes, nose or mouth; they were only indicated by a scar. The mouth showed plainest, just as if the lips were closed. From the mouth down, and as high as upper part of ear on right side of face, the skin was natural. The remainder of the face and head was covered with mucous membrane. The mold was about one inch by three-quarters. Pus could be plainly seen in the mold, and a few days later it exudated from it. I do not know the size of the neck, as the head touched the child's back, yet am satisfied the neck was very small. While examining it, the child *nodded its head* (the one on its back) three times. This appears unreasonable, but can be proven by creditable witnesses. There were no bones in its head. The child lived two weeks. Had spasms every few minutes the last twenty-four hours it lived. I have practiced medicine for twenty-five years, and never saw nor heard of a similar case. I should have added that the child was a fine, large, well-developed boy; everything perfectly normal, except this extra head.

Now, brothers, do not jump on me for saying the child nodded its head, for it did, as sure as you are reading this article."

Atrophy in Fractures.—Atrophy of the limb takes place in all fractures, chiefly as a result of disuse. From this cause it often happens that a plaster bandage which at first was snug becomes so loose that it no longer perfectly immobilizes the limb. The atrophy involves not only the muscular tissue, but the connective tissue as well, and the diminution in the blood supply, and hence the lessened amount of fluid in the limb makes the atrophy seem more pronounced. When the limb is again brought into use, the atrophy gradually disappears.—(EVE, in the *Southern Practitioner*.)

Suggestions in Male Urethra Work.—If possible, have the patient lie on his back on a hard surface like a table, with his knees flexed. Take a small hard rub-

ber male syringe, and inject a dram of a two per cent. solution of cocaine, holding the end of the penis in the grasp of the fingers of one hand, while distributing the solution by stretching the urethra and passing the other fingers down the under side of the penis. This motion, repeated a few times, will send it down into the deep parts. After two minutes, the anaesthesia is sufficient for the purpose of passing the sound or catheter.

Lubricate your sound or catheter with a bland lubricant. I prefer a jelly made from acacia and glycerine. Glycerine will do. Oil and vaseline are disagreeably sticky, but will answer.

Stand on your patient's left, grasp the penis firmly with the left fingers, holding the catheter in your right hand. Pass the instrument slowly and gently. Use no force sufficient to injure the mucous membrane, and remember that it does not take much.

If any of you have any doubts about the use of cocaine, try the introduction on yourself with and without.

If you do not appreciate the need of sterilizing your instrument, watch some patient with his chill of infection after the introduction of a dirty one. Don't try this on yourself; it's not safe.—(KELLER).

Given With Male Fern.—The nausea and emesis so common after the administration of oleoresin of male fern may be eliminated by the use of the following combination in conjunction with it:

R Cocain hydrochlorat.....	gr. 2½
Extract of belladonna.....	gr. 3
Valerian water.....	dr. 2½

A few drops before and during the administration of the male fern.

It is of course necessary to be cautious as to the dosage, since the 150 drops contain so much of the belladonna and cocaine.—(*La Presse Medicale*),

Warning.—Do not use peroxide of hydrogen in a wound in which there have been placed and catgut ligatures, unless it is intended to wash the latter out, for the reason that peroxide rapidly destroys catgut.—(*International Journal of Surgery*).

When the Nipple is Fissured.—Bathe the nipple daily during the last month of pregnancy with tincture of quinine. Avoid all ointments.—(*Medical Record*).

How They Do It Abroad.—In the medical world some enormous fees have been paid from time to time. In 1762 the famous Hertfordshire physician, Thomas Dimsdale, was summoned to St. Petersburg to vaccinate the Empress Catherine II. He was in the city less than a week, but so successfully did he accomplish his task that he was paid a consideration of £12,000 in addition to a life pension of £500 a year. Another costly vaccinating operation was that performed a few years ago by Dr. Butler upon six Indian rajahs, and from each of his patients he received £10,000 for less than a day's work.

When King Edward, or the Prince of Wales, as he was then, lay at death's door with typhoid fever, the famous William Jenner was called in for a period of four weeks, and in return he was paid at the rate of £2,500 a week and given a baronetcy into the bargain. Nor was it by any means unusual for him to receive a fee of £500 for an hour's consultation with less celebrated patients.

But royalty invariably pay their medical attendants highly. The late Sir Morell Mackenzie journeyed to Berlin to relieve the sufferings of the Emperor Frederick during his last illness and secured a fee of £20,000, while Prof. Zacherine, of Moscow, who was called to Livadia when the Czar Alexander III. lay dying, was presented with a check for £15,000, in addition to all expenses, for a two-days' attendance upon his illustrious patient. Dr. Yowski, the famous oculist, pocketed a fee of £7,000 for attending the shah's son at Teheran some years ago, a figure completely put into the shade by that captured by an English army surgeon, who paid occasional visits to the Rajah of Rampur, India, when that potentate was suffering from an acute attack of rheumatism. The patient did not wait for him to send in his bill, for, finding his treatment beneficial, he rewarded him with a draft for £10,000.

The highest medical fee ever paid, however, became the property of a blind physician, Dr. Gale, of Bristol, who cured a wealthy patient of a diseased knee by electric treatment, and in return found his banking account richer by £50,000.—(Pearson's Weekly).

An Old Remedy Reapplied.—

Since electricity has substituted steam on the underground London railways, it

is averred that a trip thereon constitutes a pronounced appetizer; persons who for years have not had a speaking acquaintance with a respectable appetite, insist that they have thereby been entirely cured. There is a possible reason for this in the fact that electricity creates a certain amount of ozone, which, being confined within the tunnel, gives the passengers a bracing air to breathe; so that when they reach their homes the weariness of the day's work has, in a measure, vanished, leaving them with a sound, healthy appetite, ready for a good dinner and wide awake for an evening's social enjoyment. And so capitalists, in providing rapid transit, are contributing largely to the longevity and general health of citizens.—(*Medical Times*).

The Original Package.—

The original package method is altogether wrong and should be abolished. If any certain manufacturer can, by superior skill and methods, produce preparations of higher standard, he will not lose his trade. Place the standard high, and none should grumble save the unworthy. Aside from the unprofessionalism of aiding the sale of proprietary articles, the physician often forgets what his patient pays for in the way of advertising when he is using them. For example, a combination of the hypophosphites and cod-liver oil is a recognized desired pharmaceutical preparation, as the countless number on the market goes to prove, but there is no reason why it cannot be prepared and sold in bulk and therefore save the consumer the expense of advertising and of the original package.—(*Albany Medical Annals*).

Hyoscyamine, New Source of.—

While *Hyoscyamus muticus* grown in India contains about 0.1 per cent. hyoscyamine, the same plant grown in Egypt yields about 0.6 per cent. for the leaves and stems, and about 0.9 per cent. for the seeds. *Datura stramonium* grown in Egypt, according to Dunstan and Brown (*Proceedings of the Chemical Society*), contains hyoscyamine to the extent of 0.35 per cent., unaccompanied by other atropaceous alkaloids.—(GUDAMER, in *Archives de Pharmacie*).

Cacao Preparations.—

In the Cameroon District, of West Africa, the best grade of cacao is made. The golden-yellow fruits are cut from the trees, (*Theobroma Cacao*) opened, and the seeds removed. Next they are cured—a fermentation process, by self-heating, requiring from ten to sixty hours, at a temperature ranging from 86° to 109° Farn., according to the volume of the harvest and the weather prevailing,—whereby the seeds lose their originally bitter and astringent taste, and the violet-colored cotyledons take on a chocolate-brown hue; this latter is accepted as evidence the sweating process has been sufficiently prolonged. The seeds are now washed to free them from impurities, dried in the air, and packed in sacks. Throughout the entire manipulation contact with metals is carefully, even anxiously, avoided.—(FREDERICI, in *Der Tropenpflanzer*).

New Medical Atlas.—Jonathan Hutchinson, F. R. S., general secretary of the New Sydenham Society, has requested Messrs. P. Blakiston's Son & Co., of Philadelphia, to announce the publication of "An Atlas of Clinical Medicine, Surgery and Pathology," selected and arranged with the design to afford, in as complete a manner as possible, aids to diagnosis in all departments of practice. It is proposed to complete the work in five years, in fasciculi form, eight to ten plates issued every three months in connection with the regular publications of the Society. The New Sydenham Society was established in 1858, with the object of publishing essays, monographs and translations of works which could not be otherwise issued. An effort is now being made to increase the membership, in order to extend its work.

Hospital Gets Tapestry.—For the new French hospital which is to be built in New York City at Nos. 450 to 456 West Thirty-fourth Street, the French Government has contributed \$20,000, together with a valuable Gobelin tapestry, from the painting by David representing Napoleon by Jaffa. It is valued at \$50,000, and is to be sold for the benefit of the building fund. The site and building of the present hospital at No. 320 West Thirty-fourth Street have already been sold, and the new hospital, which is to cost \$250,-

000, will be built by the French Benevolent Society. It will embody many French ideas in furnishing and equipment that are new to Americans. One of these will be completely isolated ward for consumptives on the top floor. The structure will be seven stories high and built of red brick and lime-

How to Remove Gunpowder Stains.—The removal of powder stains is generally considered impossible, yet it is often a cosmetic necessity for which the physician may gain a handsome fee in event of success. In recent cases the free and repeated application of pure dioxide of hydrogen will generally prove satisfactory. In cases of longer standing, paint the surfaces with ammonium iodide, one ounce; distilled water, one ounce. This solution will gradually change the black stains to a reddish color; after the red tint develops, paint the surface with a solution of dilute hydrochloric acid. It will be understood that the latter treatment is only applicable to cutaneous surfaces; but the peroxide may be used freely on mucous surface.—*Medical World*.

Pitfalls of Medical Practice.—

The errors of physicians, undoubtedly, are many, but the one most flagrant and common, is neglect of business methods. An easy going medical man will allow a patient to run a bill for a year or two, until it assumes formidable proportions; and the latter, fearing to be asked for it, will call in another, and intimate to friends, who inquire why the change was made, that the former physician was in some way a fault.—(*Medical News*).

A Convenient Antiseptic.—The most

convenient, most certain and cheapest antiseptic for ordinary emergency surgery is the application for one moment of a sponge or cloth wet with pure carbolic acid and immediately followed by irrigation with pure alcohol. Such an application could not be used on the brain or viscera, but is applicable to even extensive external wounds.—(*Exchange*).

Menthol Valerianate.—This preparation, which sometimes masquerades under the trade name of *validol*, is said to be a valuable expectorant, and especially useful in bronchitis.—(*Australian Medical Journal*).

Therapeutic Brevities.

Yeast in Leucorrhœa and Gonorrhœal Vaginitis.—Dr. Ph. Chapelle, of Paris, writing in the *Canadian Journal of Medicine and Surgery*, speaks of the success which has been met in the use of this well known domestic article in the treatment of diseases of the female organs. He says in part: "Yeast in the treatment of chronic leucorrhœa, and vaginitis due to gonorrhœal infection, has recently been tried with considerable success. Dr. Landau, of Berlin, was the first to apply it locally by injection for troublesome vaginal secretions, and found small quantities produced a rapid and complete arrest of the discharge after a few weeks."

"Murer, in France, has used it in the same manner in gonorrhœal discharges from the vagina, and found yeast most effective in suppressing inflammation of the mucous membranes, which regained their normal color rapidly. In the gonorrhœa of men, however, it was not uniformly successful. In leucorrhœa and gonorrhœal vaginitis there occurs a substitution of a morbid fermentation for a non-dangerous yeast fermentation, for the yeast-cells (*Saccharomyces cerevisæ*) appear to devour the morbid germs, which set up inflammatory conditions."

"Backer, who has made a study of the various ferments, is of the opinion that the natural toxines, however altered, may in the treatment of disease be replaced with advantage by ferments in the living state. He considers good health to be one of normal fermentation, and bad health one of morbid fermentation."

"Hence, pure ferments like yeast attract pathogenic germs, allow themselves to be penetrated by them and, once enveloped, destroy them by a true phagocytosis. D'Arsonval and Charrin have also made a series of investigations on the reciprocal action of microbes on vegetable cellular tissues, and it would appear that in the case of yeast, in its struggle with pathogenic germs, it expends its energy as a ferment, acting consequently by reason of its phagocytic properties."

"We see, therefore, why the treatment of leucorrhœa and other vaginal discharges with yeast is based on reasonable grounds, and it should, therefore, be tried in obstinate cases, which do not yield to tonics and the usual local treatment."

"The application of yeast in this connection is not convenient, owing to its keeping badly, its offensive smell, and the difficulty of obtaining fresh supplies, as well as its inconvenient, frothy nature, which makes it difficult to be retained when injected. This, however, can be overcome by using the pure desiccated form, known as Cerevisine, which may be exhibited in the form of a pessary of cocoa butter filled with Cerevisine, and placed in position on going to bed with a tampon of absorbent cotton, or again applied by dipping absorbent cotton in a thin paste of Cerevisine and water. The quantity for application is not important, as it is perfectly harmless, but from one to two teaspoonfuls can usually be introduced and retained in the vagina during the night, which will give more cleanly and comfortable results than injections of brewer's yeast during the day."

Obstetrics and Rubber Gloves.—The number of deaths from puerperal septicaemia has been markedly diminished by the introduction of aseptic methods into the practice of midwifery, but it is still too large; and the number of cases of infection falling short of a fatal issue is so great as to account for much of the invalidism suffered by women during the child-bearing period. That a large percentage of these cases owe their infection to the germs introduced by the examining finger of the physician is generally admitted.

The use of rubber gloves in surgical operations is now considered an essential part of aseptic technique. In obstetrical cases, however, which, so far as the danger from sepsis is concerned, should be classed with major surgical operations, the use of gloves is exceptional. This, we believe, is largely due to the fact that the attention of the general practitioner, who does most of the obstetrical work, has not been called to this ready and important means of lessening his responsibility for the occurrence of that most dreaded complications of confinement cases, puerperal sepsis.

Experimental research has shown that it is next to impossible, even with the greatest care and by the use of the most complete methods, always to render the parts about the nails of the surgeon's fingers sterile. How much more difficult

nust this be with the hands of the general practitioner, who, from the variety of the work performed and the frequent lack of proper facilities for cleansing, is often unable even to approach perfect methods in his preparation for the care of labor cases. Boiling water is the only absolutely efficient and always ready means for quick sterilization, but, unfortunately, we cannot boil our hands. We can, however, protect the patients and ourselves by enclosing the hands in an elastic, thin and impervious covering, which can be boiled and made absolutely aseptic.

The gloves should not only be used in all clean obstetrical work, but it is equally important to use them in cases already infected, as in giving intra-uterine douches, in emptying a uterus of a decomposed fetus or placenta in abortion cases, etc. Here the main advantage is the prevention of the contamination of the physician's hands and the lessening of the liability of his being a carrier of contagion to his other patients. In syphilitic patients the use of the gloves will prevent the possible infection of the examiner's finger and afford a protection which may contribute to the doctor's peace of mind.

The manufacture of the very thin and seamless rubber gloves has largely overcome the objection formerly urged against their use, namely, that they interfered with the tactile sensibility of the finger. A very little experience is all that is necessary to accustom one to the difference in the touch. The gloves are easily sterilized by boiling in water for ten minutes, and they may be kept in an antiseptic solution during the intervals of examinations. Lysol makes a good solution for this purpose, as it is slippery and acts as a lubricant. Oil or grease should not be used, as it spoils the rubber. The preliminary cleansing of the hands is necessary to avoid the possibility of their carrying infection in case of any holes being present in the gloves.

If the glove is filled with the antiseptic solution and the hand then introduced, the solution is readily displaced and the glove easily drawn on.

We venture the opinion, that the general adoption of rubber gloves by the general practitioner will result in a marked diminution in the number of "fever" cases following confinement.—(WESTON, in *The Lancet*).

The German Method.—From Germany comes the report of a man who had swallowed several artificial teeth. It was impossible to discover their position by means of the Röntgen rays, but they could be accurately located by means of the oesophageal sound, which touched them at a distance of 36 cm. from the natural teeth. An attempt to remove them by means of forceps failed, and therefore the sound was reintroduced and the teeth forced into the stomach, an operation that caused considerable pain. The patient was then instructed to eat large quantities of coarse vegetables, with the idea of enclosing the teeth and preventing them from injuring the intestine in their further passage downward. After several days they were actually found in a copious evacuation.

Convalescence in Scarlatina.—Convalescence in severe cases of scarlatina is apt to be prolonged, and the patient ought to be carefully guarded by the medical attendant, as the sequellae are frequently disastrous. Here the preparations of iron, Basham's mixture and the tincture of the chloride are suitable preparations, and sometimes small doses of quinine 1-6 to 1-4 of a grain, to reinforce the ferruginous remedies. These remedies with plenty of good warm clothing in bad weather, and good fresh air and plenty of sunlight usually hasten convalescence.—(McCoy, in *Medical World*).

Golf for Writers' Cramp.—Several sufferers from writers' cramp are reported to have obtained great relief by becoming enthusiastic golfers. This game requires the use of the upper extremities just to the degree adapted to people who have lived a sedentary life. The movements are necessarily co-ordinate, and they are combined with proper exercise of the lower extremities, and a large amount of time is passed in the open air.—(*Monthly Encyclopedia of Practical Medicine*.)

Erysipelas.—Wash with ether to remove grease, apply gauze, and on this a thick poultice of sodium sulphate wet with cold distilled water.—The salt acts by excluding oxygen. Ice water is applied to prevent multiplication of germs. Six to eight hours is required to effect a cure.—(CURTIS, in *Medical Record*).

Venereal Disease in New York.—Upon an investigation conducted by a committee of seven doctors, appointed by the Medical Society of the County of New York, on the prophylaxis of venereal diseases, it was recently reported by the committee that, following the most authentic sources of knowledge possible, an estimate of the number of individual cases of venereal disease in New York city in one year could not fall short of a total of 225,000.—(*Chicago Clinical Review*).

Caries of the Spine.—Of one thousand cases of caries of the spine studied by Waterman and Jaeger, the youngest patient was six months old, the oldest sixty-nine years. In the same series it was found that the affection belonged to the cervical region in 6.6 per cent of cases; in the dorsal region in 70.9 per cent; and in the lumbar region in 22.5 per cent.—(*Chicago Clinical Review*).

Calculi in Cadavers.—Of five hundred cadavers recently examined by Fiedler, of Dresden, ten per cent. were found to contain biliary calculi; and of this number five per cent. were men and fifteen per cent. women.—(*Chicago Clinical Review*).

Epilepsy and Youth.—Nearly eighty-five per cent. of all epilepsies develop before adult age is reached; and about fourteen per cent. of cases are distinct heritages from epileptic parents.—(*Exchange*).

For the Mumps.—

R Icthyol,

Plumbi iodidi, of each, 45 grains.

Ammon, chlorid, 30 grains.

Lard, 1 ounce.

M. Sig.: Apply to swollen glands three times daily.—(*Exchange*),

Vomiting of Pregnancy.—

B Acidi carbolic, gr. j—ivss.
Chloroformi, gtt. v.

Syr.

Ap. dest., aa 3 xxx.

Tinct. aurantii cort., q. s.

M. Sig. A dessertspoonful every two hours. Some teaspoonfuls of water should then be administered from time to time.

—(*Journal American Medical Association*).

Acids and the Gastric Juice.—Experiments were made on a dog by means of gastro-duodenal fistula: Under normal conditions the maximum secretion of gastric juice takes place during the first two hours, when it diminishes gradually, ceasing altogether at the fifth or sixth hour. This diminution of the secretion is due to the accumulation of hydrochloric acid. The latter, when in excess, inhibits the secretion, while lactic or butyric greatly increase it.—(SOKOLOFF, in *Bolnitchnaia Gazeta Botkina*).

Echinacea as an Aphrodisiac.—For a man, aged forty-eight years, whose condition was manifestly brought about by excessive drinking and sexual over-indulgence, I prescribed echinacea, when everything else had failed. The result was rehabilitation of erectile power, but the point of emission could not be reached.—(PULLIAM, in *The Medical Gleaner*).

Cancers, Superficial.—Mix one part of zinc chloride with three parts of flour to a perfect paste, employing a saturated solution of cocaine muriate. Or, try two parts arsenious acid with one part of gum Arabic mucilage.—(STELWAGON, in *The Alkaloidal Clinic*).

Urethritis.—For catarrhal maladies, or irritations of mucous tracts, a combination of zinc acetate and albumen naphthosulphonate is recommended. It is sometimes very effective in both specific and non-specific urethritis.—(*La Médecine Scientifique*).

Pruritus Ani.—

R Alumnol, 30 grains.

Pulv. camphoræ, 1½ drachms.

Lanolini, q. s. ad 1 ounce.

M. Sig.: Apply locally night and morning

—(*Exchange*).

In Hæmoptysis.—

B Acidi gallici, 2 drachms.

Acidi sulph. aromat., 1 drachm.

Glycerini, 1 ounce.

Aq. destillatae, q. s. ad 6 ounces.

M. Sig.: Teaspoonful at dose; repeat frequently.

—(*Exchange*).

Nitroglycerine.—This is a valuable adjunct to mercury or iodine in cerebra syphilis.—(BROWNING, in *Medical News*)

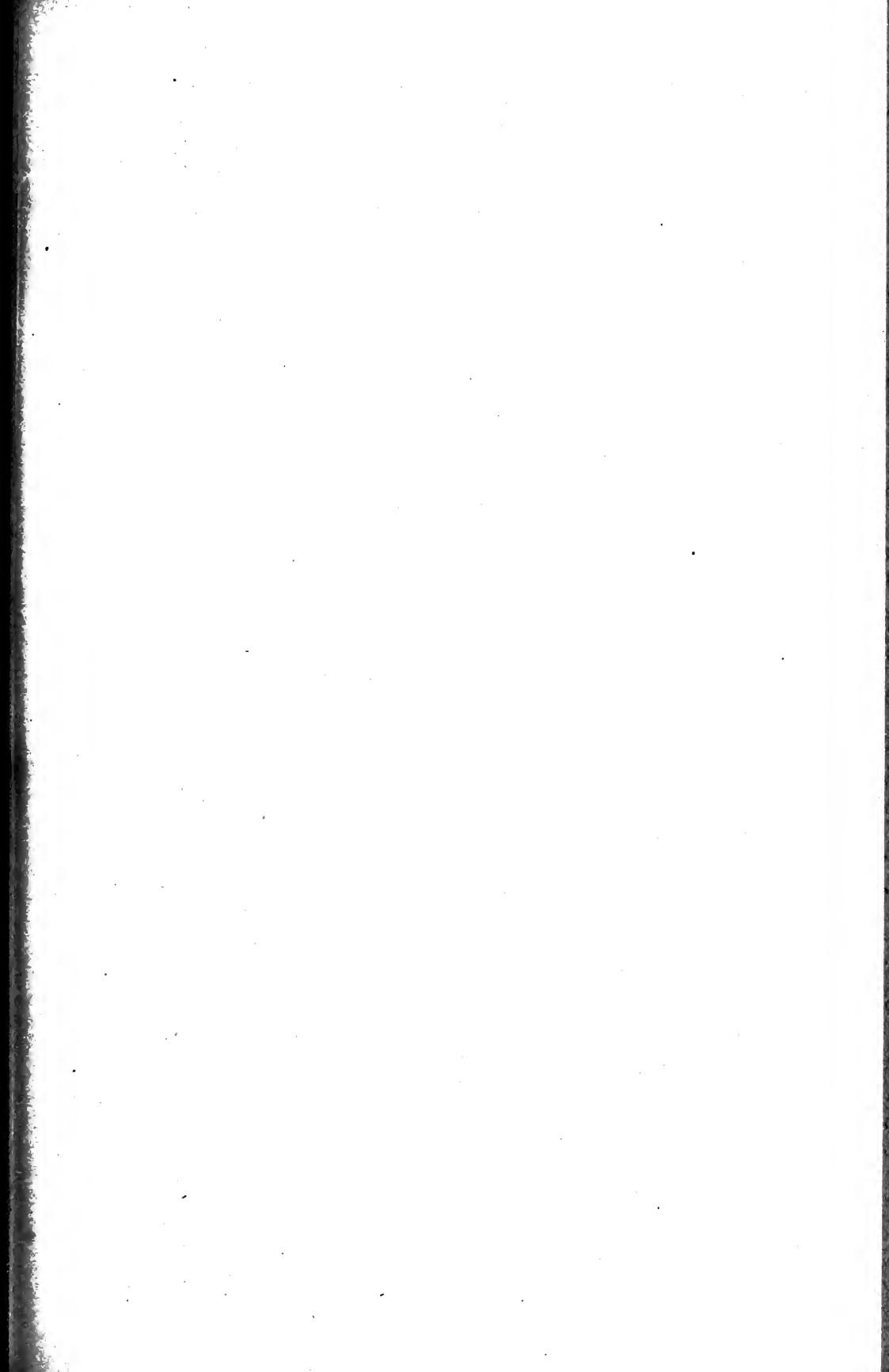




Fig. 1.



Fig. 2.

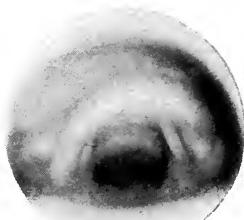


Fig. 3.



Fig. 4.



Fig. 5.

SEE DR. SPRANGER'S ARTICLE ON "THE SINGING VOICE."

DETROIT MEDICAL JOURNAL, FEB. 1902.

DETROIT MEDICAL JOURNAL

ORIGINAL ARTICLES

PATHOLOGICAL CONDITIONS IMPAIRING THE SINGING VOICE.*

BY FRANCIS X. SPRANGER, JR., M.D.
Detroit, Mich.

The changes in the singing voice produced by pathological conditions may be divided into four classes: Changes of
1st. Clearness.
2nd. Power.
3rd. Range.
4th. Flexibility.

In changes of clearness the symptoms may be objective or subjective. The singer may not realize any impairment himself, especially in the early stages; or he patient may imagine or experience changes in clearness when they do not exist, or are not heard by others.

Loss of clearness of tone is usually caused by foreign sounds, mixed with the voice—viz: Nasal, laryngeal, buccal or racheal sounds, such as rattling or a faint piping sound.

All foreign sounds in the singing voice can best be diagnosed while the patient is singing "mezzo voce," without accompaniment. One can hear defects which indicate serious pathological changes in the "piano voice" long before they exhibit themselves in the loud or "forte"

tones. The patient will invariably insist on singing with full voice or with accompaniment, but the "mezzo voce," must be adhered to in order that the sounds may come to our ears clearly.

The tone itself may be changed, becoming musically poor, or the attack on a definite note may be too high or too low in pitch, the voice after the primary attack, remaining at the proper pitch. The tone is invariably attacked a shade too high and it then instantly drops to the proper pitch when the "coup de glot" is continually used. The other extreme, of too low an attack and sliding up to the proper pitch is most largely found among singers who exaggerate the "legato" effect or who use an "H" sound before each vowel.

The several variations from pitch may persist during the whole sustained tone, this being attributed to lack of pitch or a "false ear," but in reality it is more often produced by pathological changes in the vocal bands. The instances to verify such a condition are too numerous to ignore.

There are cases in which artists have absolute pitch in playing the violin but, when they are singing, are only semi-occasionally on the proper pitch. In one instance that has come to my own knowl-

*Written for the Detroit Medical Journal.

edge, an artist accompanied his voice with masterly touch and absolute pitch on the violin, singing at the same time at least a quarter-tone flat, especially in the upper range. Many singers while they are themselves singing unconsciously "off the pitch" can instantly detect a defect of the same kind in other voices.

These conditions are usually caused by the vocal bands not vibrating in unison, one imparting an impulse to the current of air slightly slower than that given by the other. This condition is due to a unilateral weakness of the vocal bands or a weakness in the nerve supply to one of them. This allows one band to vibrate in response to the correct impulse conveyed by the sense of true pitch, and the other to lag behind.

These conditions are easily detected and the defective vocal band determined with the aid of the Stroboscope, by tuning the revolving disc of the instrument to the exact pitch of the tone that the patient is attempting to produce, when in the Laryngeal mirror the defective vocal band will be seen to vibrate slowly or irregularly; or one can observe the vocal bands swinging at variance with each other by slightly reducing the speed of the revolving disc.

Another form of variation of pitch is exhibited in the tremolo voice, where the attack is either too high or too low and continues to alternate throughout the entire sustained tone. This may become such a habit that in fully developed cases the vocal bands will show their conflict very plainly, with the aid of the Stroboscope.

Pathological changes affecting the power of the singing voice can be divided into two classes:

1st. Changes of Endurance or Durability.

2nd. Changes of Intensity or Strength.

Changes of endurance or durability are recognized in the early stages of any affection by the following symptoms:

(a) The tone begins well but grows weaker. This is usually due to Anæmia, Scrofula or specific conditions and diseases of the lungs and thorax: (b) Changes of timbre or quality, loss of brightness or freshness; the voice sounds dull or nasal. Timbre or quality defects are usually due to mechanical changes such as Chronic Rhinitis, Hypertrophy of the Turbinates, Enlarged Tonsils, Laryngitis, acute or chronic thickening of the mucous membranes either general or circumscribed, the symmetry of the larynx, changed, crossing of the arytenoid cartilages, tumors, tuberculous or benign and singers' "Nodules."

The timbre or quality defects not due to mechanical changes are produced by abuse of the singing voice, such as harmful methods of singing, too frequent use of "forced" tones, and *loss of gentle placement of attack*, or carelessness in properly placing or concentrating *each tone before applying force or power to it*; and by producing unmusical sounds, such as loud laughter, repeated sneezing, shouting, continued coughing.

The quality or timbre of a voice rapidly deteriorates when a singer employs faulty method of articulation. Many are the instances in which a voice may show the greatest promise in timbre, range and flexibility while exercises or scales are being sung with a pure vowel sound, only to be completely ruined when advance to an attempt to sing words is made, solely because of a faulty articulation. Changes in quality or timbre may also be produced by decreased resonance due to acute or chronic affections of the nasal accessory sinuses.

We cannot emphasize too strongly the importance of the part contributed by the nasal accessory sinuses to the resonance of the singing or speaking voice, especially the antrum of Highmore.

After long and interesting experiments we have determined that the quality carrying power of the voice depends a

rest entirely on the formation and physical condition of these resonating cavities. We can safely compare their importance to the voice, with that of the body of a violin or the sounding-board of any instrument. Each superior maxillary sinus has an internal capacity of from 30 to 45 ccm., the inferior surfaces and the lateral nasal surfaces remaining free to vibrate when the current of air from the larynx is properly focused against the anterior portion of the roof of the mouth, called the "forward placement of the voice" by vocal teachers.

The floor of the superior maxillary sinuses and of the nasal cavities has a measurement of more than 2 by 3 inches, to which may be added an equal area of lateral nasal surface and in the case of most well trained vocal artists, the anterior walls of the fossæ Caninæ can be included: for it will be observed that they unconsciously make use of a tension of the upper lips and tissues covering the anterior wall by assuming a forced smile. By this means the flabby tissues attached to the anterior wall are changed to a tense membrane, free to vibrate with the resonating cavity.

The importance of the assistance these large vibrating areas give to the voice has been long overlooked, and in our opinion the superior maxillary sinuses serve only for this purpose.

In experiment we have changed the character and power of the singing voice by partially filling the antrum of Highmore with saline solution through the ostium maxillaris and by thus decreasing the air capacity and retarding the vibrations of the antrum floor and the nasal walls with the weight of the solution, we have produced a change in the voice not at all unlike that produced by the application of a "mute" to a violin bridge.

Variations in the thickness of the mucous membranes in the nasal accessory sinuses play an important part in changes of the quality of tone. By acute inflam-

mation or hyperæmia of the membrane, the voice can be impaired and sometimes even improved. Instances are numerous in which singers, suffering from a severe cold, will hesitate to sing, but when fairly started they feel they never sang so well in their whole career and they probably will never again be as pleased with their voice unless similar conditions arise; the thickening of the mucous membrane may have caused the proper nasal and sinus capacities to intensify the vibrations of the voice to their utmost.

Realizing the great importance of the resonating or "sounding-board" relation the superior maxillary sinuses bear to the voice and following the well known laws of physics in their application to vibrating diaphragms, we know that the air pressure in these sinuses must be constant with the external atmospheric pressure; and if these bodies of air in the superior maxillary sinuses are confined by occlusion of the natural opening into the nasal cavities, the ostium maxillaris, we then know that the walls of our sinuses will not respond with the proper vibrations, to the current of vibrating air striking them.

We can demonstrate this fact with a "snare drum," at the side of which is a small opening, to equalize the internal with the external atmospheric pressure. If we close this small opening, the hardest blow struck with the drumstick will only produce a dull, muffled sound. We have determined by numerous experiments that the same conditions arise in regard to the power and resonance of the human voice, when the small opening that connects the superior maxillary sinus with the nasal cavities is closed or opened. By passing a small silver tube through this opening when it is found occluded or by making a new opening when the ostium maxillaris is obliterated and leaving a small piece of tubing there temporarily, we have produced most satisfactory results of improvement of the

singing voice, in regard to quality, timbre and even range. This simple operation has proved of the utmost importance in restoring these resonating surfaces to their normal functions.

The laryngeal pathological conditions that impair the singing voice may be placed under three classifications.

First:—Mechanical changes due to abnormal development, crossing of the arytenoid cartilages, acute or chronic, circumscribed or diffuse inflammatory processes.

Second:—Paralysis of one or more of the motor muscles, either acute or chronic.

Third:—Pathological growths. This last classification brings to our notice the most frequent affection of the professional singer's voice, the so-called "singer's noddles." Many are caused by over-working the voice or by improper methods of singing. Even when the cause is removed the trouble may return repeatedly and a permanent cure can be effected only by careful attention to the soft or aspirate attack of the tones, avoiding as much as possible the "coup de glot."

One of the several photographs of the vocal bands (Fig. 1), shows a fully developed Fibroma attached to the edge of the vocal band. This was removed with a Rosenberg's double curette, restoring the voice to its normal function.*

Two others, (Figs. 2 and 4) show tuberculous infiltrations, which were removed with a Moritz Schmidt curette. Both are making a satisfactory recovery.

Fig. 3 is presented as an interesting picture only. The explosion of the flash light startled the patient and the exposure was made during the act of inspi-

ration. It shows very distinctly the bifurcation of the bronchial tubes.

Fig. 5 shows the normal vocal bands in the act of singing high "G" with the "chest" voice. The details are very clear, most noticeable being the tracing of the blood vessels. The white light reflecting at the juncture of the false and the true vocal bands was produced by particles of mucous.

The laryngeal camera with which these photographs were taken, as well as the operative technique, were acquired through the kindness of the inventor, Dr. Sanitätsrath Musehold, of Berlin. The instrument itself is the handiwork of Herr Oemke, of the Berlin Physiological Institute.

Recognizing the many pathological changes of the respiratory organs that may impair the voice, it has now become the custom in Europe for singers or persons dependent upon their voices, to have a thorough examination of their vocal organs made at regular intervals; and in the larger musical conservatories a thorough examination by a laryngologist and a certificate from him, stating that the vocal organs are in a normal condition, is required from every candidate for vocal instruction—a practice which might well be carried out in this country for the mutual protection of the vocal teacher and the pupil. Cases are not at all rare in which promising vocalists find that after pursuing their studies for some time their voices become impaired; on examination of the vocal organs by a laryngologist, pathological changes are found and the impression is conveyed to the pupil, sometimes unintentionally, that his voice has been abused by a faulty method of singing—whereas, the pathological conditions may have existed and should have been corrected long before vocal instruction was attempted. Such instances can only prove harmful to the career of both the teacher and pupil.

If we are to obtain and maintain th-

*Dr. Spranger has made several attempts to secure a photograph of the restored vocal band, but up to the time of going to press he was unable to secure it, owing to the absence of the patient from the city. We hope, however, to be able to show one to our readers next month.—Ed.

ficiency of this wonderful and delicate instrument, which gives to all persons the grandest of musical tones, it is essential that we guard against and correct at the earliest possible moment any pathological changes that may impair the human voice.

270 Woodward Avenue.

THE VALUE OF ABDOMINAL PALPATION IN THE DIAGNOSIS OF DISEASES OF THE STOMACH AND INTESTINES.*

BY CHARLES D. AARON, M. D.,
of Detroit.

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When your president invited me to read a paper before the Detroit Medical Society I was anxious to select a subject which would be of interest to the general practitioner. The subject which I have elected is one which, I feel, has not had the attention from the profession that it deserves, and one which is often overlooked in the diagnosis of diseases of the stomach and intestines. I shall speak of Palpation as a method in the diagnosis of gastric and intestinal diseases. Palpation furnishes the most important data for the diagnosis of certain cases of stomach and intestinal disorders. The correctness of its results depends, of course, on the degree of technical expertness in manipulation, for while there are some general rules in the procedure, it may be said that in this as in every thing else much depends on practice and experience.

The abdomen of the patient should be brought before examination into a state of as complete relaxation as possible. The patient should lie on his back, the head should be pressed firmly backward into a pillow, and deep, slow inspirations should be made through the open mouth. The examination, dependent upon the part of the abdomen under observation, is much assisted by flexing the thighs and extend-

ing the legs. In some cases it is advisable to elevate the back, though in others the examination must be made while the patient is in the lateral position. The physician should never palpate while standing; in fact, he should avoid every possible disturbing influence, such as the weight of his body; preferably he should sit on the edge of the bed. He should lay his hands flat on the abdominal walls, and should avoid all severe pressure of his fingers. It is best to begin softly, and allow the pressure to become gradually greater, though usually an intense pressure will not be necessary. The hands should always be warm when palpating, for cold hands cause contraction of the abdominal muscles and prevent deep manipulation. If the first examination does not give sufficient results the intestines should be evacuated by a thorough purgation before another examination is made. The bi-manual examination is often quite valuable. The fingers may be introduced into the vagina or rectum, while the abdomen is manipulated with the other hand. In cases where the tension of the abdominal walls is so great that palpation is not practicable, chloroform narcosis may be resorted to.

Palpation determines whether the abdomen is sensitive to pain or not. Sensitiveness to pressure in circumscribed spots might fix the seat of bowel-obstruction. We may find the abdomen sensitive to pressure along its entire extent, and this may be indicative of diffused peritonitis. General meteorism, developed acutely, produces in itself a high degree of hyperæsthesia. Often we can feel through the abdominal wall intestinal loops which are movable. While probing for their contour and thickness we may obtain important hints. We must aim especially at fixing the seat of an obstruction, and we may obtain it by palpating, if we have previously reduced the meteorism. Sometimes the palpating hand discovers an abnormal resistance, which

*Read before the Detroit Medical Society,
February 12, 1902.

may prove to be a tumor adjoining the stomach or intestines; or again, we may feel a hard lump and this prove to be a segment of the intestine which through hypertrophy has become thick and stiff and is filled with stagnated material.

The size, form and position of the stomach can be determined by palpation and its boundaries can often be made out with considerable accuracy. The boundaries of an empty stomach cannot be determined; it is only after the stomach has been inflated with gas or filled with fluid that they can be ascertained. Before proceeding to palpation it is advisable to observe whether the stomach is sensitive when expanded; whether the pain is confined to a circumscribed spot or is general; whether it is spontaneous, or occasioned only by persistent pressure. It is important to ascertain whether acute pain or simply an unpleasant sensation results from the pressure. The expression of the patient's face will here be found far more trustworthy than his word. Localization of pain in comparatively remote parts is an important aid to diagnosis. Painfulness in the epigastrium is not always attributable to the stomach and may be due to an inflammation of the left hepatic lobule; nor does hyperesthesia in the region of the large curvature always point to gastric complication (1). It is impossible to make an exact localization of pain in cases where the pylorus is involved; or the small curvature and its vicinity, unless the stomach be fallen. Sensibility to pressure, merely an uncomfortable sensation without actual pain, is often a premonitory symptom in several kinds of inflammation of the mucous membrane of the stomach. We find this in chronic gastritis, in neurosis of the stomach, in hypertrophy of the pylorus, and in carcinoma not yet sufficiently developed to be amenable to palpation. Circumscribed pain of gastric ulcer is so typical and unique as to be easily distinguished from all other kinds of abdominal pain. This

pain is a burning, sore sensation, so that often, while undergoing palpation, the patient will try to ward off the hands of the physician.

For the discovery of tumors, palpation is one of the best methods known (2). The hand must be strenuously pressed against the patient's back, so as to bring the palpating hand into closer contact with the neoplasm. The bi-manual method is preferable in all cases of tumor. The tumor is located by means of the one hand, the pressure applied being gradually increased while the other hand determines size, form, consistency, irritability, flexibility, etc. It is extremely difficult to determine by palpation alone, whether a tumor is attached to the stomach or to some other organ. For example: there is a strong possibility of mistaking tumor for the pancreas. In a normal condition the pancreas cannot be felt through the abdominal wall, but when the integument is relaxed and the patient emaciated and the stomach empty, the pancreas may be felt in the epigastric region and may easily be mistaken for tumor. Furthermore, the lymphatic gland situated below the large curvature in the gastro-colic ligament may become swollen under certain conditions, in which case it is not infrequently mistaken for a small movable tumor (3). The stomach is connected with the diaphragm and normally moves during respiration. This point is important in deciding whether a tumor is attached to the stomach or not. Should we find by palpation that the tumor moves downward during inspiration, we may conclude that it is attached directly to the stomach walls (4). Tumors of the pylorus are less affected by movements of the diaphragm. A respiratory displacement of a tumor in the pyloric region indicates that the tumor is connected with the liver. The peristaltic movement of the stomach will at times produce sudden disappearance and reappearance of tumors which were easily

palpable but a moment before. The total failure of stomach tumors to respond to his passive displacement points to perigastritis (5). In case the stomach be greatly dilated or sunken, as often occurs in pyloric carcinoma, it follows logically that the tumor is drawn down with the stomach, and when through perigastric adhesion the tumor becomes fixed in this abnormal position, it is apt to occasion error in the diagnosis. It is impossible to palpate tumors in the posterior wall of the stomach unless the stomach be empty; while tumors differently located are best examined when the stomach is filled.

The Algesimeter (6) is an instrument constructed by Boas, for ascertaining the intensity of pain in circumscribed localities. The apparatus consists of a hollow cylinder in which there is a spiral spring. The cylinder is provided with a scale which registers the pressure on the spiral spring, which is from a half to ten Kilo. An indicator follows the spiral in such a manner as to register the degree of the pressure that has been exerted. In order to define the limits of a sensitive locality three plug-like attachments can be connected with the lower end of the apparatus. The test of irritability in the epigastrium indicates the following facts: A normal stomach will endure a pressure of five to ten Kilo. The stomach is most sensitive in the case of ulcer, registering then a slight pressure of one-half up to three Kilo. This test of endurance is so reliable, that, according to Boas, the toleration of a greater pressure practically eliminates the existence of an ulcer. A patient suffering from carcinoma will endure from two to four Kilo. Chronic gastritis and nervous dyspepsia exhibit the least deviation from normal sensibility.

By applying the finger-tips to the stomach with a short, pushing movement, a sort of splashing sound is heard. Under normal conditions this sound can be heard only after the ingestion of a great

deal of liquid and as a rule it is not emitted from any part below a line drawn horizontally through the navel. This splashing can at no time be heard in a normal empty stomach. While in dilatation, atony and gastrophtosis it is easily produced.

The several sections of the intestines call for a method of palpation peculiar to each part.

It is very difficult to find the duodenum by palpation. Only when we can discover the head of the pancreas, which it surrounds in the form of a horse-shoe, have we an approximate guide for manipulation; it is especially helpful if we can determine at the same time, the position of the gall-bladder (7). If a tumor is present in the ascending section of the duodenum, it lies to the right of the median line within the lower border of the ribs, the navel and the gall-bladder. A tumor thus situated will be found, on palpation, to be easily movable. If the growth arises in the descending or transverse section of the duodenum, it will lie in the same position, but it will be little, if at all, movable, being firmly fixed by the pancreas and the peritoneum.

In contradistinction to the large intestine, palpation of the small intestine does not give good results. Whenever we can palpate the large intestine, we can also determine the extent of the small intestine. When, however, the large intestine can not be palpated, and nothing definite can be ascertained as to its position, then we cannot make out that part of the small intestine which lies between the umbilicus and the pubes. In cases of typhoid fever, after laxatives, enteritis and chronic constipation, palpation is attended with moderate gurgling, which under normal conditions is not observed. This gurgling, however, ceases quite suddenly, unlike that which is observed in the palpation of the large intestine, for after two or three pressures it disappears. The loops of the small intestine which lie in

the right iliac fossa produce a similar gurgling in typhoid fever and cholera asiatica, but of longer duration. The ileum can be palpated in typhoid fever, and it is found quite painful and at times thickened.

The appendix vermicularis can not always be palpated precisely, because of its lack of firmness and the extreme variability of its position. For palpating the appendix, we must draw the examining fingers in a straight line from the umbilicus to the anterior superior spine of the right ileum. In doing this the pressure exerted should be deep enough to feel distinctly along the whole route traversed by the examining fingers, the resistant surfaces of the posterior abdominal wall and of the pelvic brim. In this way only can we recognize the normal or the slightly enlarged appendix. In palpating here, it is necessary to press so that we reach the posterior wall and the soft, yielding structure will glide away from the approaching finger (8). The appendix is recognized as a flattened, ribbon-shaped structure, or as a more or less cylindrical, firm organ when its walls have been thickened by inflammation. When it is the seat of inflammatory changes, the appendix vermicularis is more or less sensitive to pressure, while the normal appendix exhibits no special sensitiveness to pressure. It is said that 200,000 cases of appendicitis are annually treated by the physicians of the United States (9). It appears from the statements made by patients to the surgeon that few of these appendices are accurately palpated. An abscess that has formed in appendicitis, and has persisted there for some time, can be palpated and recognized as such.

The cæcum can be palpated only when the abdomen is relaxed. The manipulator sits at the right of the patient in the usual manner, with his fingers slightly bent on the abdominal wall over the right inguinal region, moving them downward and outward in a perpendicular direction

above the middle of Poupart's ligament. We try to find the iliac fossa, against which the cæcum can be pressed when palpated. At times the cæcum is higher than the crest of the ilium, and in this case, place the flat part of the left hand under the right lumbar region, making a counter pressure with the right hand. The line which corresponds with the axis of the cæcum goes from within downward and outward and transects usually the linea spino-umbilicalis almost at right angles (10). The cæcum can be felt as a somewhat firm cylinder which becomes rounder and broader the further down we palpate. The pressure produces gurgling. The cæcum behaves in this manner not infrequently in healthy persons. In patients with chronic constipation the cæcum is often found as a resisting body, firm, pear-shaped, movable, and responding to pressure with loud gurgling sounds. This resistant mass is formed by the stagnation of faecal matter. In hypertrophy of the intestinal walls the cæcum feels like a solid cylinder in varying proportions, contains some gases, but gurgling cannot be produced. The cæcum is distended after purgatives and in diarrhoea of various origins, especially in summer enteritis and gastro-enteritis; but in these cases its walls and its lower border are not clearly palpable but we get by palpation loud gurgling sounds as far as the cæcum extends. This gurgling is not only heard but felt and where it ceases, the limit of the cæcum may be fixed. An exception to this is Asiatic cholera in the asphyxiated stage, when neither the cæcum nor other sections of the colon can be palpated. In typhoid fever the cæcum is dilated, its resistance is heightened, and it is sensitive to pressure. Palpation of the cæcum usually produces gurgling sounds, which point to the presence of gases and fluids. The palpation of scybalæ hints at pathologic conditions interfering with peristalsis and absorption. The cæcum can be mistaken

for a kidney which has floated into the region of the cæcum and has become fixed there through adhesions. Its smooth, bean-shaped form and its pulsation at its hilum, makes it easily recognizable. It may also be said that the kidney is extraperitoneal. If the colon be inflated, the kidney which lies behind it is likely to disappear. In cases of ptosis of the transverse colon, mistaken identification may also take place. The cæcum is best recognized by its circular end, while again a continuation beyond the median line can be ascertained in the transverse colon. It is possible also in such cases to find the cæcum on the outside of the transverse colon (11). Sometimes a part of the ileum is taken for the cæcum, but the diagnosis can be established by palpating the curved border of the cæcum; the ileum disappears at the border of the pelvis.

Palpation of the ascending and descending colon is very uncertain, as loops of the small intestine lie in front of them. Localization of the hepatic flexure of the colon is also difficult, inasmuch as it lies somewhat behind the liver. The splenic flexure can be determined more easily, a circumstance which is quite important in practice. This segment, when full, feels similar to that of the spleen. It is found at the left lower border of the thorax, in the region of the spleen, and in the left, upper back, of the abdominal cavity.

The transverse colon lies usually immediately beneath the large curvature of the stomach; when the position of the latter varies, a like variableness in the position of the transverse colon takes place. In general, it may be said that in the average man the transverse colon is one centimeter below the umbilicus. The section of the transverse colon which is accessible to palpation has either a horizontal direction, as is the case when the transverse colon is high, or it is bow-shaped with the convexity downward. It is quite rare to find that both parts of the

bow, right and left of the median line, are exactly alike. Usually the right half is more horizontal, while the left rises somewhat abruptly from the median line. Sometimes the transverse colon takes the form of a Roman V. In palpation of the transverse colon we can sometimes produce loud gurgling sounds which point to the presence of gas and fluid. This has been observed after taking laxatives, in various kinds of diarrhoea and in typhoid fever. On the other hand, a cylinder which feels somewhat firm without gurgling is found in chronic colitis. The transverse colon is felt in most cases as a soft rope; under pressure low gurglings are heard; these suggest pulpy contents mixed with gases. Palpation of hard scybalæ in the transverse colon is rare, and, just as is the case of the cæcum, points to modifications of the peristalsis of the large intestine. If scybalæ are felt in the transverse colon, they are found to exist not isolated, but in large numbers, and at the same time they exist in other segments of the colon.

The position of the transverse colon depends on the position of the large curvature of the stomach, and it has a corresponding freedom of movement during respiration. The higher the colon lies, the greater the intensity of its movements during respiration. The passive mobility of the transverse colon is very great. In palpation it can be moved without difficulty upward and downward three to four centimeters. The consistency of the transverse colon changes often without regard to its contents; it may at first feel firm, and become soft while still under manipulation, and at times it may even disappear under the palpating fingers. This may be explained as a purely physiological phenomenon, in contradistinction to contractions seen in intestinal stenosis or obstruction of the bowels accompanied by cramp-like pains. The palpation of the transverse colon is made easier through its superficial position and

relation to the stomach. In emaciated patients it is marked by sharp outlines. If, in consequence of continued atony, it has become a wide, loose sack, it may be mistaken for a dislocated stomach. In palpating it at the height of the navel, we feel about the breadth of the abdomen an extensive festooned arched organ of the consistency of an air-pillow, which can be easily isolated by the hands from the other organs. It can be differentiated from the stomach by dilating the latter artificially with air.

The sigmoid flexure should be palpated in the left inguinal region, and also in a perpendicular direction above the middle of Poupart's ligament. The investigation of the sigmoid flexure is quite easy. It feels like a cylindrical rope, moderate in consistency; no gurgling sounds are produced during palpation. Though gurgling is observed in various diseases of a diarrhoeic character, after laxatives, in typhoid fever, etc. In these cases the sigmoid flexure is dilated. In dysentery the sigmoid flexure is felt as a solid, thick cylinder, is painful under pressure, and no gurgling sounds can be produced. The contents are usually mushy or fluid, as in diarrhoea. In chronic constipation scybala may be felt occasionally, but faecal matter can be easily recognized in the sigmoid flexure as smooth spherical or cylindrical masses which yield when pressed toward the back of the pelvis. The sigmoid flexure often has peculiarities of the same nature as those of the transverse colon. At the cessation of the diarrhoea the sigmoid flexure may be reduced below its normal size, assume a ropy form without the production of gurgling sounds, and become as thick as the thumb or index finger. But when by palpation we find that the transverse colon or cæcum is enlarged, considerable gurgling is produced in the sigmoid flexure. We may often find the sigmoid flexure without feeling the transverse colon; but, on the other hand, we can not

feel the colon transversum without at the same time feeling the sigmoid flexure; there is but one exception, and that is a stricture of the colon in the neighborhood of the hepatic flexure. Easy palpation of the sigmoid flexure in adults is a normal phenomenon. Where the sigmoid flexure can not be found, we may be certain that there is some cause for the difficulty, as for instance where there is a hernia within the abdominal cavity. It is possible that the sigmoid flexure may be taken for a depressed transverse colon. The latter is recognized by the fact that it can be followed several centimeters beyond the median line, while the sigmoid flexure disappears into the pelvis. Ptosis of the transverse colon is also frequently taken for the sigmoid flexure, but the latter can be traced as proceeding from the pelvis outward. Quite frequently it is found that the sigmoid flexure lies above the pubes and adjoins directly the abdominal wall, assuming the form of the Greek omega. Such a position of the sigmoid flexure is clinical.

So far as the diagnosis of the seat of carcinoma and other tumors is concerned, palpation will give valuable data, for the reason that we ascertain the mobility of the tumor and refer it to a definite location.

A strangulated section of the intestine becomes frequently recognizable by its dilatation and immobility at a circumscribed spot, disclosing itself through stronger resistance to palpation and asymmetric forward arching in inspection.

In intussusception we can prove in fifty per cent. of cases the presence of an enlargement in the abdomen which can be found in children more clearly and more easily than in adults. The tumor is usually smooth, hard, cylindrical and irregular; its compass varies from the size of an egg to that of the fist of a man; and sometimes it goes to the length of the

forearm (12). Not infrequently it becomes noticeable in paroxysms of pain only, and escapes the hand of the palpator in the intervals. Most constantly the evidence of enlargements is present in ileo-cæcal and colon invaginations. Where a tumor is present it may originate in an ileo-cæcal invagination which can be readily found in children; it does not lie then in the region of the cæcum but in the part above and to the left of the umbilicus, which corresponds to the transverse and descending colon.

In tuberculosis many palpable tumors are recognizable. These may be due to the enlargements of the mesenteric glands.

We must not forget that the results from palpation may vary in successive examinations, inasmuch as the perception of certain enlargements may vary. In fact tumors have been known to disappear transiently, and may be perceived again after the lapse of some time.

In conclusion I wish to say that in presenting this paper I do not wish to be misunderstood as claiming for palpation that by it alone we can diagnose disease, but rather that it should be employed as one of the many other means at our disposal to arrive at the correct conclusions.

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Hysterical Hip Disease.—Dr. James Putnam, writing in the *Journal American Medical Association*, makes some interesting comments on this malady. He says that absolute increase of measurement from the anterior superior iliac spine to the internal malleolus is a sign of hysterical hip disease. "The differential diagnosis between tuberculous and hysterical hip disease is sometimes easy," writes Dr. Putnam, "but sometimes very difficult, while a correct diagnosis is always of great importance. Whereas in tuberculous disease the erosion and absorption of the bone shortens the measurement from spine to malleolus, in hysterical hip disease this measure is sometimes longer on the affected side. The explanation of this was given by Halsted—namely, that the affected leg is abducted in hysteria, while the opposite leg with which comparison is made, is abducted. The pelvis is literally tilted in such cases, and is probably due to the contracture of the muscles of the affected thigh. The presence of other symptoms characteristic of hysteria will confirm the diagnosis. These, according to Gilles de la Tourette, include pain and tender spots of various points along the affected limb, marked cutaneous hyperesthesia, absence of nocturnal paroxysms, the presence of hysterical edema about the affected joint and limb, involvement of the knee muscles in the rigidity, coldness of the affected parts, and the presence of fits and the mental "stigmata" of hysteria. In a patient aged 30 years, who fell through a trapdoor and struck her hip and the back of her feet on the floor five feet lower, the symptoms of hip disease, with contracture and hyperesthesia, and pain on passive motion were present. The attitude and measurements corresponded with those of hysterical hip disease, and hemianesthesia was also noticed. Edema of the hip persisted for a long time, and the entire left leg was cooler than the right. The knee-jerk and plantar reflex was also exaggerated in this leg. On examination under ether, the differences disappeared, the movements of the hip-joint were free, the measurements normal, and the feet and whole appearance of the two hips became essentially alike on the two sides."

VACCINATION AND CHICKEN-POX.*

BY E. S. SHERRILL, M. D.,
Detroit, Mich.

The following case presents an interesting and unusual coincidence, the occurrence of chicken-pox and vaccination in the same patient at the same time.

E. P., aged four years, was vaccinated as a precautionary measure at the time of her father's illness with chicken-pox, January 25, 1902. On February 4, 1902, with evidences of the vaccination taking in the normal way, the child developed chicken-pox, which progressed in a typical way. Two other children besides the case referred to contracted chicken-pox, the eruption appearing with them on February 1, 1902. The eruption in the case of the vaccinated child was far less pronounced than in the other children, in all not more than twelve vesicles developing.

THE MEDICAL TREATMENT OF
GALL-STONES.*

BY E. S. SHERRILL, M. D.,
Detroit, Mich.

From time to time the medical Journals discuss the desirability of more careful attention to the medical treatment of gall-stones. During the past year my treatment of a case, in which an operation was not advisable, has given such satisfaction that I wish to call the attention of the profession to it. While I have just used the expression, "my treatment," there is no claim of originality intended. Dr. Buckler, of Baltimore, (*American Journal Med. Science*, July, 1867) advocates the use of succinic acid and peroxide of iron on account of the large amount of oxygen contained in them. They are combined and given in the following prescription for six months at least:

R Hydrate Succinate of Peroxide of Iron, oz. 1½
Distilled water, oz. 8
M.
Sig. Teaspoonful after meal.

The use of this remedy is commended by Octerlony, of Louisville (A Paper on Chole-lithiasis, 1877). In this paper the writer says: "I have used this salt according to this formula and in almost every case with complete success." This authority advises at the same time a course of Carlsbad water.

The case in which I have employed the treatment now for more than four months is that of Mrs. C., aged 47, who for two or three years has been subject to attacks which could be diagnosed ordinarily as gall-stone colic. The attacks would begin with decided discomfort in the epigastrum. This would be followed by vomiting and pain. After some of the attacks the patient would be jaundiced. The attacks had become more and more frequent and were occurring every two or four weeks. After administering the remedies referred to, the succinate of iron and the Carlsbad water, the attacks soon became less severe and now for four months have ceased entirely. The patient is very grateful.

The prescription is one which may be had of any druggist.

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Cleanliness.—"If I were asked to name the single factor of greatest moment to the hygiene, the attractiveness, and the comfort of a hospital ward, I should unhesitatingly say cleanliness; cleanliness in the ordinary sense of the word as understood by every good housewife. Not only cleanliness of the ward and its furnishings, but cleanliness of the patients, of the nurses, of the attendants and of the doctors. Without cleanliness all the elaborate rules, regulations and opinions on ward construction and management mean nothing in so far as satisfactory results are concerned; with cleanliness as the watchword it is often astonishing what can be accomplished even in hospitals devoid of the commonest conveniences of model institutions."—(Dr. A. C. Abbott, in *Pennsylvania Medical Journal*.)

*Written for the Detroit Medical Journal.

ELECTRO-THERAPEUTICS.*

Clinical Lecture by
ORVILLE W. OWEN, M. D.,
Detroit, Mich.

I shall divide my subject into four heads and cite one or more cases under each subdivision.

Believing as I do that failures teach to the student as much as and even more than success, I shall mix success and failure together. In other words, I shall try to give a true series of experiments in my electrical work. The subdivisions I have elected to use are:

- 1st. Peripheral manifestations.
- 2nd. Central manifestations.
- 3rd. Special manifestations.
- 4th. Tumors.

It has been my good fortune to have had sent me for treatment a number of seemingly like conditions: but under examination and treatment marked differences have appeared and complications that have very materially changed the results, as the two following cases will show:

Mrs. A., aet. 29. White American, married, no children. Temp., normal, pulse 78, respiration 19, weight 140; mixed type, well-to-do, no specific history. She was suffering from facial paralysis of the right side, of four days' standing, which had come on quite suddenly without premonitory symptoms. Physical examination revealed loss of sensation in lower portion of the face. Marked hyperesthesia of supraorbital nerve. Tongue deflected to left, partial loss of taste and smell. Ptosis nearly complete. Muscles of the eye slow in action: dilatation of right pupil.

The patient was requested to seat herself in front of the static machine and then a ball electrode attached to the anode was slowly carried down the back, beginning at the base of the neck. Sensation was normal until the second dorsal vertebra was reached, when no spark was

felt. The prime conductors were then cautiously drawn apart until a four-inch spark was administered, when a slight sensation of burning was manifested. The second, third and fourth dorsals were anaesthetic; below normal, sensation again became apparent.

The patient now remembered that twelve years before she had been thrown from a carriage and badly bruised at this point.

Believing that the trouble came from this, treatment by spark and galvanofaradic currents were used daily along the back, with faradization of the seventh, fifth and supraorbital nerves. At the end of twelve treatments the paralysis had entirely disappeared, the dorsal nerves responded to a half-inch spark, smell and taste were normal and the patient was discharged as cured. I saw her within the last ten days and there had been no recurrence of symptoms in the five months since she was treated.

The next case is one of absolute failure. Mr. B., a patient sent me by Dr. Hickey. Facial paralysis left side, history of specific infection. All the physical signs of paralysis were marked. Back responded to spark normally. Six mixed treatments were given without in the slightest degree affecting the trouble. The static spray failed to open the capillaries, nor would the galvanic current show any marked variation of blood pressure.

The natural deductions to be drawn from these two cases are: First, that non-specific lesions are amenable to electric treatment: Second, that careful resistance measurements by spark and galvanometer should be used in every case.

The next case was Mrs. C., sent me by Dr. E. L. Shurly. Paralysis of the flexor muscles of right forearm; unable to dress herself; pain sharp and lancinating. The trouble was of three months' standing. Upon examination the muscles responded slowly to the interrupted galvanic current, when the interruptions were eight

*Delivered before the Detroit Medical Society.

to the minute. Faradic current increased the pain. The back was normal.

The treatment consisted of static spray for 15 minutes, applied to the head, and galvanic massage with a 15 milliampere current to the flexor muscles for from 10 to 12 minutes. At the end of thirteen treatments the patient was discharged cured, and now, nine months from the time of the treatment, there has been no recurrence.

Mr. D., aet. 19, sent me by Dr. Inglis. Paralysis of the right wrist; unable to write, put on his gloves or feed himself. There was history of a sprain four months before. All the muscles of the forearm were slow in responding to stable or interrupted current. Treatment, galvano-faradic massage full half-hour daily, with cataphoresis of potassium iodide twice a week. At the end of sixteen treatments patient was discharged cured. No recurrence.

In central disorders, I shall report only two cases.

Mr. E., patient sent me by Dr. Inglis. Locomotor ataxia, involuntary passages of bladder and bowels. No history of specific trouble, but had been a masturbator for a number of years. The patient was aet. 49, but looked 70. Treatment by indirect spark, nine inches long. The involuntary passages ceased at the end of eight treatments. The patient was able to stand upright, but the locomotion was not in any way benefited. The case was one of twelve years' standing and even the help given in the matter of cleanliness and absence of odor was of great benefit.

Mr. F., patient sent me by Dr. Charles D. Aaron. Yosemite victim; nervous depression from the cruel treatment upon that sink of cruelty during the Spanish war. Anæsthesia of spinal nerves, marked tendency to fall asleep and great irritability when aroused. No history of syphilis or gonorrhœa. Did not drink and was only a moderate user of tobacco. Treat-

ment was directed to spine and head. Static spray and spark 15 minutes, with a 5 milliampere galvanic anode to the spine and a cathode plate over abdomen. After twenty-six treatments the patient was able to go about his duties and was later sent to Paris by his employer. A letter recently received from him states that he is in good health and spirits.

Special manifestations:—Mrs. G., patient sent me by Dr. Lennox, married, the mother of one child. Hyperæsthesia of vagina, intense pain at coition. No caruncles or enlarged glands. Back normal. Treatment by the vaginal electrode, 15 to 20 milliamperes positive galvanic current, abdominal plate. The patient was relieved from the start and was cured after ten treatments.

Mrs. H., patient from the interior of the state. Mother of one child. Enlarged left ovary. Painful to the touch; had to wear loose clothing; walked with difficulty. Treatment, large abdominal plate over ovary, negative pole saturated in iodide of lithium. Positive carbon electrode introduced well up the vagina. Twenty-five milliamperes galvanic current slowly applied for 5 to 7 minutes. Cured in nine treatments. Perhaps in all the work done by the writer, there has been no one case so pronouncedly marked in relief as this one. I have received a letter from the patient in which she thanks me over and over again for the complete cure effected without removal of the ovary.

Tumors:—Mrs. N., married, mother of three children; aet. 47; epithelioma of the uterus and abdominal wall; two prominent surgeons had refused to operate and the patient was given but a few weeks to live. She was brought to my office in a carriage and carried into my room. A carbon electrode was introduced into the vagina and a spongio piline plate applied to the abdomen. A 35 milliampere current was used on the anode for seven minutes, and the patient was sent home.

One week from that day she came again; a slough as large as a small orange had taken place and the introduction of the electrode was much more easy. A 45 milliampere current was used and this resulted in a large slough. At the end of a week the patient came to my office on the street cars and without help. A 65 milliampere current was used, again resulting in a slough that allowed me to introduce a platinum uterine electrode, and then the current was increased to 75 amperes for five minutes. My patient was up and about the third day after the treatment and walked to church. The next day for treatment being stormy, a carriage was called and the patient and her friend started for the office. The coachman was drunk and the horses ran away, with the result that when the patient arrived at the office she was in a state of collapse from which her weakened condition did not permit her to recover. She died four days after.

I have murmured somewhat against fate in this case, as I am not sure but a cure could have been accomplished. Perhaps fate was kind to me, but for all that I could wish that something would happen to that drunken driver.

Another patient was Miss O., white American, aet. 39. Hard lump in the left breast, lancinating pains; no enlargement of the glands; tumor diagnosed by another physician as carcinoma. Treatment, stable current with mercuric cataphoresis 25 milliampheres negative pole to abdomen; positive pole, carbon electrode to tumor. In eleven treatments the growth disappeared and there has been no recurrence to date.

This closes my citation of cases. I have tried to show both success and failure and I believe I have done so. It would have been easy to have shown nothing but success; but if one cure any and all he would be divinity and not mere man. From failure comes knowledge; from absolute success comes egotism.

But there are enough failures to keep down the rising "I Am." Whatever may have been the prejudice against electricity in the past, it is rapidly disappearing under the light of the Roentgen ray and the static spark. And the new century will, yea must, show gigantic strides in electro-therapeutics. New machines, new electrodes, new methods and new men will carry the science upward until there will be no other single agent so much used, in my belief, so universally successful as electricity.

32 Adams Ave., West,
Detroit, Mich.

Congenital Absence of Abdominal Muscles.—Osler, in the *Bulletin Johns Hopkins Hospital*, reports a third case of this rare condition. Parker, in the *Clin. Soc. Trans.*, Vol. xxviii, 1895, and Guthrie, in the *Pathological Society, London, Trans.*, Vol. xlvi, are the only other authorities who have contributed reports to the literature. Osler's case is as follows:

"The child was well until the second summer, when gastric attacks of nausea and vomiting began. From the history of the case, in some of the attacks the chief trouble was with the urine. The spells lasted four or five weeks at a time. The present crisis showed pains in the abdomen and burning upon urination. The very weak, anaemic, poorly nourished child complained of pain in the hypogastric and lower umbilical regions; passed urine fifteen or twenty times daily, and had a temperature ranging between 99° and 102°. There was remarkable fullness in the hypogastric and lower umbilical regions, with an ovoid mass corresponding to a dilated bladder. In the recumbent position the belly flattened out in front and extended in the flanks. Coils of intestines could be seen in peristalsis. There was extreme relaxation of the abdominal walls and the organs underneath could be easily palpated. It was possible to feel the whole extent of the liver. The bladder reached almost to the navel. He has cryptorchidismus."

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

WALTER C. BOYNTON, Manager.

—ISSUED BY—

THE DETROIT MEDICAL JOURNAL CO.,

NOTE.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, to 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., FEBRUARY, 1902.

OSTEOPATHY.

The state of New York is apparently getting after osteopathy with a sharp stick, if the press dispatches are to be believed. Sens. Brackett and Krum are quoted as being the only members of the state legislative body who favor the Missouri method of healing, while their favor itself is practically confined to a willingness to report favorably on a bill to provide for the creation of a state board, whose province it shall be to examine osteopathy with a view to seeing whether or not they are fitted to ply their vocation. Most states now have similar boards for plumbers, horseshoers and undertakers.

The physicians of the Empire state were present in somewhat large numbers at the legislative meeting at which osteopathy could muster so small a showing of hands, and spoke vehemently against any bill which provided for the admission to practice of osteopaths. From an ethical standpoint, perhaps they were justified in their denunciation; from a selfish one, they were unwise. It is reasonable to assume that osteopaths treat people because people want to be treated by osteopaths. Even the fiercest opponent of osteopathy has never pictured the osteopath as literally cramming his treatment down the throat or into the flesh of an unwilling and protesting patient: they are probably called in attendance by the patient just as reputable prac-

titioners of medicine are. The people, then, who patronize the osteopathic gentry are largely to blame.

And after our osteopathic friend has tried and failed, the patient comes to his senses, dismisses the rubber-man and sends for a physician. Perhaps the latter fails, also. But it is much more probable that his failure, if any exist, is due to the fact that the patient's constitution has been worn threadbare under the hands of the osteopath. Osteopathic "cures," of which adherents of the cult prate so loudly, are much like those of Christian Science, extremely hard to locate with any definiteness or assurance that the recovery of the patient was not made in the face of Christian Science, or osteopathy, rather than by its aid.

So long as people are credulous and ignorant of some of the most fundamental principles of health and right living, the osteopath and fellows of his kidney will flourish in the land. Detroit has had numerous experiences in seeing the establishment of "magnetic institutes" on her prominent residence streets and members of the medical profession have had the chagrin of seeing the carriages of wealthy and presumably intelligent people—standing in front of the "professor's" door. Money comes easily to anyone but a reputable practitioner. But the next chapter of the professor's career is quite likely to be his appearance as defendant in an assault case, the charge being a "laying on of hands" not authorized even by whatever rules his profession may have. We have seen several cases of this kind in the city, and the wonder is that refined women will submit to being pawed over by some ignorant fellow who has never received even an average education and whose instincts are those of an animal. No one knows how many cases of abused confidence there have been, kept secret by the patient through a natural horror of figuring in any such connection before the court. But the

"layer on of hands" continues his blasphemous pretensions and secures his patients by the score for a time. Then he is driven out by his landlord because he refuses to pay an honest debt—and he departs to another town, changing his name as easily as he does his clothes. Another establishment is set up and the same performance gone through with.

It seems to be clearly the duty of a governing body to frame such laws as shall shut out from "practice" such persons, failing the ability to educate the people at large to better ideas concerning the sacredness of the medical profession, which is truly one of the three-fold gospel.

DR. IMMANUEL PFEFFER.

A Boston physician, named Immanuel Pfeffer, is reported in the Associated Press dispatches as being ill at the home of his son in Weston, Mass., suffering from small-pox. This statement in the daily press might not attract more than passing notice, were it not for the fact that the physician in question has been more or less prominently mentioned as an opponent of vaccination, on the ground that it is unnecessary. So thoroughly convinced was he of the uselessness of vaccination that he secured entrance into one of the city hospitals some three weeks ago, on the ground that he had a right there as a practicing physician. His exposure to the disease of small-pox in the ward devoted to the treatment of that malady was complete and satisfactory and if the experimenter had escaped the disease there might have been strong grounds for the belief that there was something in his statement that he could not contract it.

The fact that he did contract what had every appearance of being a complete and virulent case of small-pox, however, goes far to disprove his contention. He was removed to the home of his son and

information is given that his retirement from the city in which he had formulated his theory was in a way sudden and secret. Certainly he made no effort to call the attention of his brother practitioners to the fact that he had contracted a disease which he had stated time and again was impossible to contract. He hoped to prove by his exposing himself that vaccination was unnecessary and in fact was not far from being a myth. The untoward result will go far to convince the profession and the laity as well that Dr. Pfeffer's theory was lacking in some of the essentials of a tenable one: and if the disease should have a fatal termination, there will be little debate as to whether the doctor sacrificed himself in the interests of science or on the altar of obstinacy.

EDITORIAL NOTE

Amœbic Dysentery in Children.—

The *Journal of the American Medical Association*, speaking of this malady, makes the following comment:

"In a recent contribution to the subject of amœbic dysentery in children, Dr. Samuel Amberg has added very much to the clinical knowledge of the disease. Besides the four cases of Harris, he refers to two others which have been observed in the United States in which the amœba was demonstrated in the faeces, and he adds five cases observed by himself, occurring in the service of Osler. His cases were from two and three-quarters to five years of age. Following the classification of Harris, four of the cases belong in the group of the very mild form; there was little effect on the appetite and general health and the stools varied from two to six in twenty-four hours, with no fever or acceleration of the pulse worth

mentioning. Harris had referred to this form as the usual one in children, and the small amount of discomfort experienced by the children is a striking feature. Amberg's fifth case belongs among those of moderate severity. In two cases, prolapsus recti was observed. No hepatic complications were present in any case, and amœbic abscess of the liver seems to be very rare in children as compared with adults. Amberg was able to find but twelve cases in the literature where abscess of the liver followed dysentery in children, and in only two of these were the amœbæ demonstrated. The symptoms correspond closely to those in adults. The faeces may be formed with bloody, mucoid masses on the surface, or there may be loose passages, containing more or less blood and fragments of mucous. The diagnosis was always based upon the finding of motile amœbæ containing red corpuscles in the faeces.

"Charcot-Leyden crystals in faeces have often been referred to by writers upon amœbic dysentery, and their presence in the faeces of persons suffering from helminthiasis is well known. They were present in four of Amberg's cases, and with them were always associated eosinophile cells and free eosinophile granules in varying abundance. Because of the inconstancy of the picture of the faeces, Amberg is unable to draw a conclusion regarding the relation between the numbers of amœbæ, crystals and eosinophile cells. In any case, Charcot-Leyden crystals in the passage of a child should always excite a suspicion of amoebic dysentery, and this is of especial importance, as the amœbæ may be found only after repeated examinations. The significance of the eosinophile cells must be determined by further study. Now that attention has been called to the subject by a series of carefully studied cases, we may expect further observations upon similar cases in the near future. The accurate diagnosis is of much importance

from the side of treatment, as injections of quinine solutions appear to be most efficient in combating this variety of dysentery."

(Has any reader of the *Detroit Medical Journal* had any case of amœbic dysentery come under his recent attention? We should be glad to publish a detailed account of its progress.—Ed.)

Quackery in Pennsylvania.—

Dr. Harry Hakes, of Wilkes-Barre, Pa., read a paper before the Luzerne County Medical Society, in which he deals some sledgehammer blows at irregular practitioners. The society has reprinted Dr. Hakes' paper, portions of which follow. As it is in line with the editorial of this month's issue, it may be of interest.

Dr. Hakes said in part: "Restrictive medical legislation is a failure in Pennsylvania; nay, more, it opens up schemes of fraud in the examining board. The law is a dead letter by common consent. Only last week a bill designed to restrict irregular practice in New York was before a committee, and the rooms were packed by faith curists, Christian scientists, spiritualists, prayer curists, etc., with able legal counsel to protest against legislation inimical to their pretensions. For a wonder, the osteopaths are not mentioned as present at the scramble. I have never had much faith in medical legislation in restraint of quackery, and if I ever had, I confess it has become attenuated to the remotest degree. Well, we are not likely to behold the termination of medical quackery, or such a universal diffusion of pertinent knowledge as shall prevent the generality of mankind from chasing after strange gods, or submissively yielding to the alluring pretensions of the charlatan and pretending healer. But the question is pertinent, who will be your allies in this endless competition with ignorance, fraud and imposture? Certainly not those from whom

you might reasonably expect it. Where will you find the members of that learned profession, the Bench and the Bar? Generally as ignorant of the issue as the common uneducated laity, and when and where they could do you the most good, they are more than likely to cast their influence against you. It is true you can purchase the services of the Bar, in your behalf, but they are just as free to serve your opponents for pay also, and a little more so, because it is a great thing, before a public audience or court, for the lawyer to outgeneral and degrade the doctor, if possible. Medical imposters are not necessarily fools, and are not slow to parade the names of the judiciary, certifying the virtues of their wares. But what of that other learned profession, the theologian, or the clergyman? Their influence is scarcely neutral, for the reason that they also may make some claim, quite unquestioned, of ministering to alleviate human suffering—if not the physical body, yet to the mind of the sufferer—nor is it right to ignore or depreciate this aid to the doctor.

"What a lowering of the dignity of a learned theologian is this. Hear what the Rev. Mr. Small says:

'My wife, myself, and all our numerous children have long been suffering from asthma, diabetes, sick-headache, strangulated rupture, typhoid fever, nervous prostration, cancer, scrofula, and all the various gynecian complaints known or unknown. Tried all the doctors, but got no relief. When we were all about gone up, we tried one bottle of the blessed Lydia Pinkham's sovereign "ready relief," and we are now about as well as usual. Praise God from whom all blessings flow.'

Rev. Giasticus Small.'

"One of the most transparent frauds of any era has recently been launched hereabouts, christened "*Osteopathy*," in which it is claimed that human beings are merely machines, and their diseases can

be cured by mechanical means alone, without drugs, medicine, or the use of any surgical instruments, the same as a locomotive or a watch. If man were only a machine, this theory would be true. But the fact remains that man is more than a machine. Man is an organism; he is begotten of his kind, he grows, he has life, he possesses will and reason. Of his own volition he goes from place to place; he talks, walks, can laugh or cry, can strike and kick. He is imbued with a spark of the Spirit Eternal; he can love and beget his kind. I have no words to sufficiently express the foolishness or degradation of one, elaborated from the economy and workshop of Jehovah, who realizes in himself nothing but a senseless and soulless machine.

"Such nonsensical philosophy can no more live and endure than could a man without a head, heart, stomach and lungs. So, too, will soon pass the horse doctor's scheme of mechano-neural therapy.

"There are other forms by which ignorance, superstition, imposture and avarice are presented as friends of suffering humanity, supposedly screened and entrenched behind the bulwarks of the religious sentiment, or religion itself. Of course you at once recognize that I refer to so-called faith curists, prayer curists, alleged divine healers, etc., all somewhat agglomerated under the specious and awe inspiring name of Christian Scientists. The insidious danger that lurks unseen in their theories and practice, is that the religious sentiments are appealed to in support of modern miracles—upon a strictly cash basis.

"Quackery in all or any of its cunning forms has its foundation in gross superstition, or in selfishness, ignorance and greed, and first or last is self-explosive. Stamp out all its multifarious forms today, if you please, or if you can, but you may rest assured that as long as ignorance, superstition and selfish greed pertain to men, and women too, quackery

under some possible guise will reappear and find an abundant clientage of asses and dupes to pay for, advocate and defend it. Keep this in view constantly, that you do not underestimate the number of people, who, in need of skilled labor, are astute enough to seek those who are best educated and practiced in their particular business, but if it is a case of disease to be treated, unwittingly reverse their tactics, led astray by the pompous advertising of the charlatan, the ignoramus, the hypocrite or scoundrel who depletes their cash, and in course of time enables them to report that he or she is about as well as usual. The quacks do not seek their customers among those attacked with acute ailments. They seek what are called "hypochondriacs" and "chronic cases," not because they can cure them, but because they want a staying and long paying customer. As long as quackery claims to treat disease by physical and visible means, you can well afford to leave it severely alone. Yea, give it all the rope desired, and contain your souls in peace. But when claim is made to cure diseases by occult power, by invisible means, by Almighty power, summoned at the will of a miserable shyster, male or female, for filthy lucre, then and there draw the line on all such and their abettors."

Among the recent visitors to this office was Joseph Milkowski, possibly better known as Edward Lewis, the "man with the musical heart," as he is called. Lewis is an interesting study from the point of view of the physician: his heart was wounded by a sabre thrust at the Yarkautz gold-mines in Siberia in 1889, while Lewis and his companions were trying to escape a sentence of life imprisonment as punishment for the Nihilist attempt made on the life of Czar Nicholas III in 1885. When the prisoners escaped, they were overtaken by the Cossack guard and in the melee Lewis was stabbed. A German physician told him the wound was fatal, but by some chance the victim recovered and later, when he was in the hospital it was discovered that his heart gave out most unusual sounds, resembling those of a wind-instrument.

Since that time, Lewis has been a more or less familiar figure to the medical profession of the country. He travels extensively and permits examinations of his heart by whatever means the physician thinks wise: he naively remarks that he does not want his heart cured, as it is now his means of livelihood. The Roentgen ray shows that the organ is nearly three times the normal size, but in spite of this fact Lewis appears to experience no inconvenience from it. He has on several occasions made arrangements with physicians to have his heart go at his death to some educational institution, but up to the present he has always outlived the man with whom the arrangement has been made.

The present condition of his heart is most interesting, and he has hundreds of testimonial comments on it from prominent men in the profession.

In the January number of the *Detroit Medical Journal*, on page 315, appeared a short and pithy item, headed "Suggestions in Male Urethra Work." It was credited to Dr. Keller, but further credit should have been given to the *Medical Council* of Philadelphia, in whose January number it appeared. We hope Dr. Taylor will pardon the oversight, for it was an oversight, and that he will unite with us in an earnest effort to give credit where credit is due. Some of the other medical publications ought to join in, also.

A committee of the College of Physicians of Philadelphia has announced that the sum of \$500 will be awarded to the author of the best essay on "The Rela-

tion between Chronic Suppurative Processes and Forms of Anaemia." This sum of money is from the Nathan Lewis Hatfield prize for original research in medicine, and a few simple conditions are imposed by the committee upon those who compete for the prize. All essays are to be submitted before March 1st, 1903, each essay to be typewritten, designated with a motto or device, and accompanied by a sealed envelope bearing the same motto or device and the name and address of the author. The only envelope to be opened will be that accompanying the successful essay.

In accordance with the conditions of the Trust, the treatment of the subject must embody original observations or researches or original deductions; the committee reserves the right not to make the award if no essay submitted is considered worthy of the prize. The competition is open to all members of the medical profession and men of science in the United States.

The original of the successful essay shall become the property of the College of Physicians and its Trustees shall have full control of its publication. It shall be published in the Transactions of the College and, if thought expedient, as a separate issue. Unsuccessful essays shall be returned to their respective writers or their agents if claim is made for them within a year.

Competitors should address J. C. Wilson, M. D., chairman, College of Physicians, 219 S. 13th St., Philadelphia, Pa.

Surgeon and Druggist.—

Vol. I, No. I, of the "Surgeon and Druggist," published by the J. Ellwood Lee Co. at Conshohocken, Penna., has been received. It is a neatly gotten up pamphlet of sixteen pages, whose object, stated in its greeting, is to "represent advanced modern ideas in the general science of healing." The present number contains some interesting excerpts from the best journals and has also a report on a suc-

cessful formaldehyde disinfection test carried on by A. W. Clark, the chemist and bacteriologist of the company.

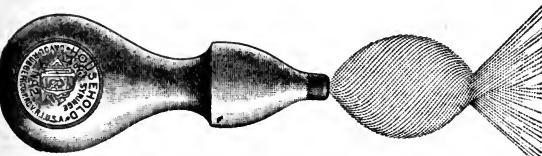
In Gastric Flatulence.—The sulpho-carbolate of sodium will be found highly beneficial in such trouble. In the gastric form the drug may be given in aqueous solution (gr. v to x) after meals, and where constipation exists, as is so frequently the case, the aromatic fluid extract of cascara sagrada may be advantageously added. In the intestinal form of flatulency the sulpho-carbolate is best administered in pill form (enteric coating) in which instance two and a half or four grains may be used.—(*Clinical Review*.)

Stone at an Early Age.—Dr. M. F. Porter, in *Annals of Surgery*, gives the following data in the case of a child less than four years old: "The attacks were for a time considered of intestinal origin and later, after careful inquiry and observation, of renal origin. Soon after this stones were passed with the urine. The trouble began when the baby was only six months old; during the next two years she had a great deal of trouble of the same kind and passed in all perhaps a teaspoonful of stones, ranging in size from that of a millet-seed to that of a large grain of wheat. The attacks ceased and for a while she seemed to be without trouble. When about four years old the patient was seen again and it was learned that for some days while passing urine she had had attacks of pain in a way to suggest stone in the bladder. Under sounding the diagnosis was confirmed. The operation was done two days afterward and the stone removed by suprapubic cystotomy. The stone weighed when thoroughly dry sixty grains and measured seven-eights of an inch in width and three-eighths of an inch in thickness. The bladder was immediately sutured with catgut and the external wound with silkwormgut and a small wick of gauze left in the lower angle of the wound. This was removed in forty-eight hours. The bladder was drained for five days with the retention catheter and the child was discharged from the hospital on the 12th day of April cured. At the time of operation she was three years ten months and twenty-five days old."

NEW INSTRUMENTS & DEVICES

NEW SYRINGE.

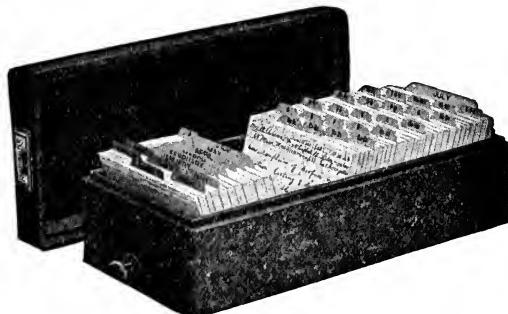
Rotary Spray syringes are not entirely new, but for the one illustrated herewith some extra advantages are claimed. It is made entirely of rubber and the soft rubber shield is sufficiently yielding to secure an absolute fit to the parts, doing away with the possibility of leakage. There are no metal parts to corrode and no valves to get out of order, while its simple construction makes it possible for the manufacturer to sell it cheaply.



The syringe throws a hollow, rotating mass of water, whose action is thoroughly cleansing. Injection and suction combine to cleanse the parts. The syringe retails to the profession for \$1.50.

INDEX RECORD.

The methodical physician ordinarily likes to keep a pretty careful record of the cases under his treatment and the outfit illustrated herewith will be of great assistance along these lines. Cards suitable for historical data are provided, with spaces for name, age, nationality, weight, temperature and so on, a special arrangement being provided for the easy in-



sertion and removal of the cards in the box without disturbing the other cards. The size of the cards is 4x6, ample to allow brief history of each case. Another set of cards allows the writing of historical data on the back and on the face are spaces showing date, treatment, fee—if any—credit, and other interesting and practical things. The name and address of the patient are placed at the top of the card and

alphabetical arrangement permits of easy inspection by the doctor, who can inform himself at a glance of the history of the patient's case and the indebtedness of the patient at any given time. The whole outfit is neatly put up and enclosed in a handsome polished box.

The price of the complete outfit mentioned above is \$8.50, and the same company puts out a special trial outfit for \$3.50, which shows the advantages of the system.

THE BELL BOY.

The accompanying cut shows the "Bell Boy," a recently designed device for the use of physicians. It is five inches square and is intended to be placed at the side of a physician's door, answering the purpose of a bell boy. A small metal slide with a handle can be made to assume two positions, one showing the legend "IN, Ring Bell," and the other the word "OUT,"



with the expected time of return showing in a square below. By means of a rotating disc of celluloid this time may be changed, showing every hour of the day and also giving such suggestions as "five minutes," "ten minutes" and so on.

At the top of the case is an aluminum plate, with the words "leave message" and a slit through which a message may be dropped. A card case is on the front of the box, holding cards of such a size that they readily pass through the slit. The physician upon his return can readily find the messages by lifting up the front of the box. Provision is made for matches, so that the patient can see to write, and altogether the manufacturers of the little device have crowded several unique and convenient features into a space of 25 square inches. The box is handsomely finished and the complete outfit retails for \$2.00.

PNEUMATIC CUSHION.

A small device, invented for the purpose of making telephoning less disagreeable, is the "Faultless Pneumatic Cushion." As may be seen by the accompanying cut the device consists of a ring of rubber, designed to slip over the end of the receiver of the telephone and to act as a cushion for the ear. Anyone who has had the experience of holding the hard rubber receiver to his ear for several minutes will appreciate the comfort which may be derived from this little device. It is said to improve hearing and it certainly does largely away with the concussion and shock to the ear incidental to long telephoning. It can be removed and washed readily—not an inconsiderable thing in its favor. It retails for 50 cents.



NEW TOURNIQUET.

A new tourniquet, the advantages of which will be evident upon inspection of the cut, is illustrated herewith. Among other advantages possessed by this new device are the facts that it is easily applied to any portion of the body with great rapidity and that once in situ it will not slip until the physician desires to



remove it. Then it becomes a simple matter to take it off. It is one of the most powerful of tourniquets and owing to the means devised for holding the rubber cord, it is durable, as there is little wear on the restricting portion. Arrest of circulation is accomplished with less damage to tissue than is the case with other tourniquets and yet the arrest is prompt and efficacious.

The tourniquet is made by a well known rubber house and its retail price to the profession is \$1.00.

Cirrhosis of Liver Diagnosed.—Dr. James C. Wilson, of Philadelphia, at a recent meeting of the New York Academ-

my of Medicine, read a paper on this subject. He said that it was unfortunate that the name cirrhosis had come into use; for, while it had been applied originally because it signified a yellow or tawny color, and this was more or less descriptive of certain forms of this hepatic affection, it gave no direct and accurate conception of the pathological condition. It was now asserted that atrophic and hypertrophic cirrhosis of the liver are not, as formerly supposed, merely different varieties of the same disease, but totally different diseases. Again, the term atrophic cirrhosis was likewise misleading; for statistics had shown that the hob-nail liver, to which it had been originally applied, was not necessarily smaller than the normal, and might even be larger. No definition could be framed which would include, both pathologically and clinically, all forms of so-called cirrhosis of the liver. The one underlying pathological process common to all the varieties is an overgrowth of the connective tissue of the liver. Chronic interstitial hepatitis was a sufficiently comprehensive term, and should be more generally used. Certain infections, toxæmias, and mechanical irritation give rise to interstitial hepatitis. Not all forms of chronic interstitial hepatitis could be recognized. A high degree of atrophy may occur, provided the collateral circulation has been established without other symptoms directing attention to the liver. Adhesive pyelo-phlebitis closely resembles the atrophic form of interstitial hepatitis. The rapidity with which the peritoneal effusion reforms after tapping is an important diagnostic sign. The hypertrophic form of interstitial hepatitis often presents insuperable difficulties of diagnosis in the early stage. The recurrence or persistence of jaundice, its intensity, and the presence of bile in the stools, were of diagnostic importance. After the disease had become established, the uniform enlargement of the liver, the splenic tumor, the occasional attacks of jaundice, and the fever were diagnostic. Chills and sweating are not common, thus serving to differentiate it from impacted gallstones. In terminal conditions, the diagnosis is a comparatively simple matter.—(*Charlotte Medical Journal*.)

THE THERAPEUTIC BREVITIES

Rapid Dilatation of the Eustachian Tubes.—Dr. W. Scheppegrrell, writing in *Advanced Therapeutics*, says: "The mechanical method simply stretches the stricture, which soon returns to its former condition. In the more obstinate cases the electrolytic method is preferable, as it is of permanent benefit.

The bougies are made of gold, and are passed through a silver catheter insulated with a thin rubber tubing. The catheter is carefully inserted into the mouth of the eustachian tube, which has previously been cocainized, and the bougie pushed forward until it meets with an obstruction. A current of three or four milliamperes is then passed for twenty seconds to one minute, when the bougie will be found to pass forward with slight resistance, the patient at the same time hearing a "frying" sound characteristic of the electrolytic process. The patient holds the positive electrode, while the bougie is attached to the negative pole. The application should not be repeated for a week, so as to allow the reaction and congestion to subside. After sufficient dilatation has been obtained, the usual treatment by inflation and vaporization should be carried out.

"This method should be attempted, however, only by those who are familiar with the manipulation of the catheter for the eustachian tube. As the parts are cocainized the patient cannot render any assistance from his own sensations, and it is thus quite easy to injure the nasopharynx or the eustachian opening. Even the correct electrolyzation of the eustachian tube may produce ulceration and consequent retraction, so that the method should be followed only in the most careful manner."

Baryta Carbonica Symptoms.—The Baryta carbonica patient has a large head, scrawny neck, unhealthy hair, hypertrophied tonsils, ungainly gait and a heaviness of the head which renders study difficult.—(*Medical Magazine.*)

THE TONSILS FROM A PURELY CLINICAL POINT OF VIEW.*

Extract from Paper
BY FRANCKE H. BOSWORTH, M. D.

"As to the instrument to be used, I will say that for the last ten years I have ceased entirely to cut tonsils with a tonsillotome. No tonsillotome has ever been devised which will fit itself so completely over the growth as to thoroughly extirpate it in every instance. The cold wire snare adapts itself so admirably in every way to the operation that it seems to me that it leaves nothing to be desired. The loop can be arranged in such a shape and size as to perfectly fit over the mass and can be slipped between it and the facial pillars in such a manner as to secure the thorough removal of the growth much more effectually than is possible with the use of the tonsillotome. Furthermore, if the whole mass is not extirpated with the first manipulation, it is a very simple matter to repeat until the facial pillars drop into their normal position. The danger of haemorrhage, as I have always claimed, does not present itself, especially in operating on children, but in operating on adults a very considerable haemorrhage, which may even reach the dangerous stage, is always to be anticipated when the knife is used. With the snare this danger is practically eliminated, and to one who has met with severe haemorrhage after tonsillotomy, this is no slight consideration.

*Transactions of 23rd Annual Meeting of the American Laryngological Association, 1901.

A Good Liniment.—The following may be regarded as the type of a preparation for external use in painful conditions of the large cavities and the joints. Where it is possible to use heat and friction the action of this preparation will be enhanced:

R	Lin. bellad.,	ʒiss.
Ext.	opii,	
Ext.	bellad.,	
Ext.	hyoscyam., aa.	3ss.
	Chloroformi,	3ii.
M.		
S.	—For external use.	
		—(<i>Clinical Review.</i>)

Summer Diarrhea.—"T." in *Pediatrics*, lays down the following rules for treatment:

"1.—Clear the bowels as quickly as possible, by stomach washing, colon irrigation and small, frequently repeated doses of calomel.

"2.—Starve for twenty-four hours, give ice-water with brandy if necessary.

"3.—When the acute symptoms have passed, give egg albumen, water, and subsequently beef juice.

"4.—Withhold cow's milk until the third or fourth day and then commence with .5 per cent. fat and .5 per cent. proteins, gradually increasing the strength.

In cholera infantum give hypodermic injections of morphine gr. 1-100 and atropine gr. 1-800 hourly if necessary, as a cardiac stimulant. If there is drowsiness and coma give alcohol instead. Replace the fluid lost by subcutaneous saline injections, gr. 45 ad Oj in the twenty-four hours."

Tetanus Treatment.—Dr. F. A. Packard stated that the only cases of tetanus he had seen recover were those treated by injections of carbolic acid, every case treated by anti-toxin having died. Twenty-five grains of the drug may be given in twenty-four hours with no symptoms of poisoning. Whether or not it possesses a specific action against the toxins of tetanus, he is convinced that its use is the one way of curing tetanus if cure be possible. Dr. Packard uses vaccine shields and believes that they do harm only when so tight as to obstruct the circulation of blood or lymph. All the very sore arms under his observation were those on which he had used a gauze dressing, it seeming to act as a mechanical irritant. The shield is to be preferred if it be removed at the end of forty-eight hours.—(*Medical News.*)

For Light Burns.—A very soothing application for burns of mild degree, and particularly for scalds from water or steam, is the following:

By Cocaine, gr. v.

Ung. zinci oxidii, ʒi.

M.

A thin coating may be spread upon gauze and applied to the part.

—(*Clinical Review.*)

Beri-beri and the Heart.—Dr. Arthur Stanley in the *Journal of Tropical Medicine* closes a paper as follows:

(1). Beri-beri has a marked degenerative action on the heart muscles, which frequently causes fatal circulatory failure. (2). In this respect beri-beri resembles other toxæmic diseases, such as diphtheria, influenza, and alcohol and arsenic poisoning, which often cause peripheral neuritis, and also other toxæmic diseases, such as typhoid fever, plague, and acute rheumatism, which do not, or rarely, give rise to peripheral neuritis. (3). Beri-beri and diphtheria are the diseases *par excellence* in which sudden fatal heart-failure occur. (4). The heart muscle degeneration is not a secondary result of neuritis of the vagus. (5). The heart muscle degeneration takes place, as a rule, before skeletal muscle degeneration, and is the result probably of direct action of the toxin, and not a secondary result of nerve change. (6). Sudden heart-failure does not indicate a sudden lesion, but rather is the result of a gradually increasing heart weakness from cardiac muscle degeneration, which may be precipitated by any sudden exertion, but more frequently is the result of the principle of "all or nothing"—the transition of from "all" to nothing being necessarily rapid. (7). The cardiac physical signs in beri-beri closely resemble those found in diphtheria, and are of paramount importance in prognosis and treatment.

Epidemic Dysentery in a Fœtus.—Markwald, in the *Münchener Medicinische Wochenschrift*, reports the following:

"A patient, in the seventh month of pregnancy, came to the hospital presenting symptoms of severe dysentery. Two days later spontaneous labor resulted, and a deeply asphyxiated child was born. All efforts to save it were futile. The post-mortem revealed in the intestines the lesions of dysentery. Cultures from the blood in the right ventricle showed the presence of the bacillus dysenteriae (Kruse). This is the only case reported in the literature in which it has been definitely demonstrated that dysentery is directly transmissible from the mother to the fœtus in utero."

In Prolapse of the Cord.—Dr. H. Henne, in *Centralblatt für Gynakologie*, is quoted as having followed the subjoined method. "After all other well-known means had failed the cause of such failure was found to be the attachment of the placenta, which was very low down and caused the head of the child to remain in the right aspect of the canal. The method he followed was suggested by the retention of loops of intestine away from the operative field in abdominal sections by means of gauze pads. He took a clean towel, soaked it in a one-per-cent. solution of lysol and squeezed it dry. He folded this into a pad, passed it into the vagina and then, after replacing the cord, gently forced the towel up into the uterus in such a position that the cord rested upon it and was retained by it. The procedure was easily carried out with the help of profound narcosis. The head of the child, of course, had to be pushed upward into the uterus. The intra-uterine hand of the operator was maintained within the canal until pains again appeared. It then guided the head of the child into its proper position and rendered the action of the towel more satisfactory. In this case the remainder of the delivery was normal and entirely free from a recurrence of the prolapse."

Dietetic Treatment of Epilepsy.—Baint, in an article on this subject in the *Berliner Klinische Wochenschrift*, draws the following conclusions:

1. Diet containing a minimum of chlorides is applicable to every case of epilepsy and should be tried.
2. Treatment succeeds best in an institution.
3. A rigid diet of small chloride content should be instituted in every case until the character of the disease has been definitely determined.
4. Small doses of bromide may be administered in addition to (3).
5. The method of administering bromides with the foods, especially as a substitute for common salt in bread, is recommended.
6. The sedative action of bromine in this method of administration is greatly increased, and may therefore be employed in other nervous affections in which a pronounced bromide effect is desired.

Nailing the Femur in Intracapsular Fracture of the Hip.—Dr. Charles E. Thompson, is reported in the *St. Paul Medical Journal* as having made use of a silver nail in treating a fracture. Clinical notes are subjoined: "Patient aged 62 years; sustained fracture August, '99; bedridden three months; $2\frac{1}{2}$ inches shortening; hip very painful; operation consisted of one horse-shoe incision around trochanter major, flap being elevated. Second flap consisted of periosteum, and 1-3 thickness of shaft of bone, extending $2\frac{1}{2}$ inches below tip of trochanter, freed and elevated from below, leaving muscular attachments to trochanter intact. Several pieces of loose bone removed from seat of fracture. Solid silver nail 3-16 of an inch in diameter and $2\frac{1}{2}$ inches long was driven through the neck and into the head of the femur; bone flap replaced and retained by small silver nail. Wound closed by catgut suture. Entire limb and body encased in plaster of Paris spica. Patient left hospital at end of six weeks. One year after operation patient had 3-4 inches shortening, 90° free and painless motion. Walked without crutch or cane. Died of intercurrent disease six months later. Specimen obtained showing firm bony union."

Alopecia Areata.—Shampoo the region every day, then bathe with carbon tetrachloride, which removes grease and micro-organisms, and rub in with slight friction:

R Hydrarygi bichlor...	0.90	(gr. 14)
Camphor	60.0	(3ij)
Spt. terebinth.....	60.0	(3ij)
Spt. lavand.....	30.0	(3j)
Alcohol	300.0	(3x)

The neighboring parts should be depilated and touched with a pencil made of

R Sulphur precip...	0.50	(gr. viij)
Resorbin	1.50	(gr. xxij)
Chrysarobin		
Paraffin, aa.....	2.50	(gr. xl)
Ol. theobrom.....	3.50	(gr. lv)

Or a cotton roll dipped in strong carbolic may be laid on until the parts are blanched, when further action of the carbolic is stopped by applying pure alcohol.—HALLEPEAN, in *Le Bulletin Général de Thérapeutique*.

NOTES & COMMENT

Sterile Marriages.—Dr. Oscar J. Price, in the *Clinical Review*, contributes an able article on the causes and takes occasion to say some very good things on the moral side of sterility. He says: "The number of sterile marriages is far greater than it is usually believed to be. In this connection, I quote from the valuable paper of Dr. George Engelmann, of Boston (formerly of St. Louis), upon this subject, read at the last meeting of the American Medical Association at St. Paul: 'Sterility among the laboring classes in St. Louis is 21 per cent.; varying in different groups—20.4 to 23.7 per cent. In Boston 23.7 per cent.; and 20 per cent. for all American born throughout the entire state, according to the Massachusetts census of 1898. My own records in private practice in St. Louis shows 23.6 per cent. of native Americans barren, and Americans of German parentage 26.3 per cent., an unusually high rate, which harmonizes, however, with the condition in Boston among Americans of Irish parentage, 27.2 per cent. An equally high sterility, in fact higher than among any other group, is attained by the college graduates, of whom comparatively few marry, and a large proportion of those who do marry are barren (33.7 per cent.), as reported in the investigation of 1885, and 20.5 per cent. in 1900, averaging 27.3 per cent. My own records of Irish and German give only 17 per cent. Among Negros, where invariably I find unfavorable functional conditions, 24 per cent. In Massachusetts 20.2 per cent. of Americans are childless, and only 13.3 per cent. of foreigners. Germans 11.2, French and Irish 11.6, English 14.4 and English Canadians 19.5 per cent.'

Again, 'Foreign records show a great variation from the lowest sterility in Norway (2.5 per cent.), and in one of the districts near Moscow (2.8 per cent.), to 27.3 per cent. in Paris, Lyons and Rouen. (In some of the departments in France only 16.8.)'

Persistent Ectopic Gestation.—In the *Dominion Medical Monthly* Dr. George Elliott records some strange cases observed by Dr. J. F. W. Ross. He says:

"Dr. J. F. W. Ross, for the fourth time, has met with ectopic gestation, twice in the same patient. Dr. Ross then gave the history of the case. In 1898 a woman had haemorrhage, lasting for three weeks. On examination, a mass was found behind the uterus, and a diagnosis of rupture of pregnancy made. Operation was performed, and a blood-clot found shut off by adhesions. A good recovery was made. In June, 1901, the same patient had indefinite pains and flow of blood from the uterus. On careful examination a very small nodule was found on one side of the uterus. It was not easy to feel it, but it could be distinctly made out, and it was separate from the ovary. A delay of two weeks ensued, and patient came back at the end of that time for re-examination. The nodule had enlarged to about double the size. There were no other signs of pregnancy present. Operation followed, and Dr. Ross stated that this was the smallest unruptured ectopic gestation he had ever seen. The patient made an uninterrupted recovery."

"Dr. Ross then reported the following case, which had come under his care since the one above reported. On examination, a blood-clot could be felt breaking down in the pelvis, the mass being chiefly felt on the left side. She was taken ill with sudden severe fainting while lying in bed. She had a peculiar coloring of the skin and collapsed look. She had very little menstruation in September and October. As soon as this gestation sac was removed, the finger was passed down to the left side, and another one was found on that side, a three and one-half months' fetus, and the right one was certainly active, as well as the left. The peritoneal cavity was washed out rapidly, and salt solution had to be given and the legs bandaged. The wound was closed with through-and-through sutures. At the time of reporting the case the patient was going on to recovery."

Vena Cava Injured in Nephrectomy.—Lindner, writing in the *Muenchener Medicinische Wochenschrift*, speaks of this unusual accident to a patient aet. 62, whose kidney he was in the act of removing for

the cure of a large movable tumor which affected the right organ. The mass was being delivered from the wound when there shot up from the depths a tremendous stream of dark blood, causing the operator to exclaim that the vena cava had been torn. As soon as the wound was clear enough to permit of its depths being inspected, it was seen that this was exactly what had happened. The two ends were caught and ligated, but the patient died in a few hours as the result of air having entered the heart. It was shown that a part of the vena cava had been completely grown around by the tumor, consequently in removing the same the involved section of the vessel was torn out. Eight such accidents are reported in the literature. Twice the same vessel has been ligated as an operation of choice, and without causing the death of the patient; a fact of decided interest to physiologists and surgeons.

Resorcin Poisoning.—Dr. A. Caillé, in *Pediatrics*, reports a case of this kind in a five days' old infant. Resorcin, gm. 0.015 (gr. $\frac{1}{4}$) every four hours, was ordered, and after the sixth dose the child became cyanotic, pulseless, cold and clammy, and the urine voided before collapse set in had a smoky color. The child was given a hot bath (110° F.) every two hours and kept warm by hot-water packs; the bowels were flushed with a very warm saline solution every three hours, and warm sweetened tea was given by spoon frequently. As soon as the child was out of collapse it was put to the breast, and in a few days its recovery was complete.

Gonococcus in Blood.—Dr. E. Unger, in the *Deutsche Medicinische Wochenschrift*, is reported as having discovered and demonstrated the gonococcus in blood. It was in a case of gonorrhreal urethritis complicated by an arthritis involving the ankle, hip, and wrist joints. Aspirations of blood from the median vein when mixed with bouillon or blood-serum showed on culture colonies of diplococci which decolorized by Gram stain. The author advises three precautions in the use of this method for diagnosis: (1) Use fairly large quantities (5 c.c.) of blood, so as to obtain as many bacteria as possible; (2) dilute the blood considerably, so as to decrease its bactericidal properties;

(3) select a fluid culture medium, which permits rapid, unresisted development.

Graduated Fees.—“While it is a very difficult thing to adjust a medical practitioner's fees according to the equitable value of service to the patient, it is not so difficult, in theory at least, to grade fees with a fair degree of consideration of the financial ability of the patient to pay. It is not reasonable to expect the laboring man to pay two dollars for a call, and expect no more from the man who lives on the avenue and is generally held to have an income of ten thousand a year. He should, by right, pay five or ten dollars a visit, and feel perfectly satisfied in so doing. A physician's services should not be bartered the same as a yard of cloth, a pound of nails or a bushel of potatoes. An attorney never forgets or neglects to charge his wealthy client a good, round price for much the same service that, to a laboring man, he would expect to ask but little. The clergyman always looks for from twenty-five dollars upwards as a wedding fee in the case of wealthy parishioners, while one or two dollars is fair compensation from the man in a shop or clerkship.

“In surgical work, and also in obstetrical practice, the graded fee is in esteem and is becoming more firmly fixed every day. Probably the time is not far away when for every-day calls something of the same wisdom will obtain, reducing at one end of the line of patients and raising at the other extremity.”—(*Clinical Review.*)

Some of Them Manage It.—Dr. A. K. Steele, in a paper read before the Chicago Medical Society, states that there is an unusual amount of ignorance both on the part of the public and of the profession regarding the incomes of physicians. Professional incomes are greatly overestimated. The income of the average physician in Chicago varies from \$1,500 to \$3,000 per annum; office specialists—eye and ear, nose and throat—average \$3,000 to \$6,000; consulting physicians, \$5,000 to \$15,000; six leading physicians, \$15,000 to \$35,000; six leading surgeons, \$20,000 to \$60,000; six leading gynecologists, \$10,000 to \$20,000; six leading office specialists, \$10,000 to \$15,000; average surgeons, \$3,000 to \$10,000. The practition-

ers in Chicago whose income from practice exceeds \$30,000 per annum can be counted on the fingers of one hand, and probably not more than a score exceed \$20,000 per annum. The \$2 to \$3 visit, the \$5 to \$25 consultation, the \$18 to \$30 case of obstetrics, and the larger fees provided for operative work do not insure large incomes for many in the profession. The expenses of a physician keep pace with his increasing business, so that the opportunity for accumulating wealth is not easy.—(*Courier of Medicine.*)

Methyline Blue in Otitis.—*Merck's Archives* quotes Prof. H. Gaudier as follows: "After having cleansed the canal by means of a warm soap and water injection, the patient turns his head to one side, and 15 to 20 drops of the solution mentioned above are instilled into the ear. This procedure lasts five minutes and during this time the patient performs the maneuver of Valsalva; that is, he makes a forced expiratory movement, while keeping nose and mouth closed. Air is thus forced into the ear and the methylene blue passes from the canal into the tympanic cavity. Nine old cases, with perforation of the tympanum, treated in this manner, showed marked improvement. The deodorizing properties of methylene blue render it superior to other antiseptics, and the purulent discharge diminished under the influence of the remedy more rapidly than under any other treatment.

"In ordering methylene blue, emphasis should be laid upon getting a pure medicinal article, as there is a dye on the market of the same name."

Very Low Rates to the Northwest.—March 1 to April 30, 1902, the Chicago, Milwaukee & St. Paul will sell tickets to Montana, Idaho and North Pacific coast points at the following greatly reduced rates: From Chicago to Butte, Helena and Anaconda, \$30.00; Spokane, \$30.50; Portland, Tacoma, Seattle, Victoria and Vancouver, \$33.00. Choice of routes via Omaha or St. Paul to points in Montana, Oregon and Washington.

For further information apply to any coupon ticket agent in the United States or Canada, or address Robt. C. Jones, Michigan Passenger Agent, Detroit, Mich.

Vaccination Points.—Dr. A. J. Harrington, in the *Canadian Journal of Medicine and Surgery*, among many other interesting things, lays down the following: "The spot that is to be vaccinated should be carefully cleansed with soap and water and then dried. No antiseptics should be applied to the skin at this time. A small area should be scarified with a needle which has been previously sterilized by passing through the flame of an alcohol lamp or a Bunsen burner, and the lymph (always glycerinized lymph in the tube) is applied to the scarified area and thoroughly rubbed in. Do not draw blood if you can possibly avoid it, as a gentle oozing of serum gives much better results. If you draw blood, while it is drying the fibrin of the clot contracting forces the lymph through the serum to the surface as in ordinary coagulation of the blood and the effect of the vaccination is lost, and this is a great cause, to my mind, of the majority of cases where vaccination does not take in persons who have not previously been vaccinated. Now, give plenty of time for the lymph to dry thoroughly, then apply a clean piece of cotton or absorbent cotton over the vaccinated area, and retain it in place with adhesive plaster. This method of vaccination requires much more time than the old way, but the difference in results will well repay the additional care, and sore and swollen arms will be a rarity."

Puerperal Convulsions.—Of leading importance, and, to a degree, in the relative order of value or application, the following procedures occur:

1. Immediate and rapid delivery, regarding the mother first, the child secondarily.
2. Narcosis during the delivery and the employment of means leading thereto.
3. Signal attention to aseptic and antiseptic rules.
4. Careful selective regard in using chloral, ether, chloroform, morphia, veratrum viride, etc.
5. Prompt opening of all excretory avenues.
6. Dilution of toxin-loaded blood by saline infusions.
7. Prompt stimulation in the event of evidences of cardiac failure.—(*Clinical Review.*)

Good for the Court.—The Supreme Court of Indiana has recently handed down an opinion on the right of a physician to refuse to treat a case. The question was settled in connection with a lawsuit resulting from the fact that the physician was called to attend a person dangerously ill, but refused to go, and the patient died; and it was alleged that no other physician could have been called in time to be of service.

The court held in favor of the physician, that he is not liable for refusing to respond to a call, even though he may be the only one available.

In construing the Indiana statute regulating the practice of medicine, the court said: "That in obtaining the State license to practice medicine, the State does not require, and the license does not engage, that he will practice at all, or on other terms than those he may choose to accept."

We see no distinction or difference in such a case between the duty of the physician and the lawyer, and no one would hold the lawyer could be compelled to take a case for a client unless he was willing to do so.

We can understand how all might feel that a physician who refused to take a case in an emergency, when no one else could be got in time, and death resulted in consequence, should be generally censured, and the case would be a calamity, but that certainly should not establish a legal liability.—(*The Medico-Legal Journal.*)

Peroxide in Dysentery.—Rocaz, in the *Journal de Médecine de Bordeaux*, comments favorably on the use of this anti-septic in cases of dysentery in children. Lavage with hydrogen peroxide was practised 2 or 3 times daily; the effect was speedy and marked. Within two or three days the character of the stools changed materially; blood and mucous disappeared, the stools became less and less frequent, and the sphincter regained its tonicity. He states that in order to secure a cure it is necessary to continue medication some days after subsidence of symptoms.

One in 10,000.—Insurance tables show that in Germany only one person in 10,000 reaches the age of 100 years.—(*Exchange.*)

BOOK REVIEWS

A System of Physiologic Therapeutics. A Practical Exposition of the Methods, Other Than Drug-giving, Useful in the Treatment of the Sick. Edited by Solomon Solis Cohen, A. M., M. D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College; Physician to the Philadelphia and Rush Hospitals, etc. Volumes I and II. **Electrotherapy.** By George W. Jacoby, M. D., Consulting Neurologist to the German Hospital, New York City; to the Infirmary for Women and Children; and to the Craig Colony for Epileptics, etc.

As is stated in the general introductory remarks by Dr. Cohen in volume I, these two volumes by Dr. Jacoby on **Electrotherapy** are the first of a series of eleven volumes on physiologic therapeutics.

In reviewing these two books on electricity and electrotherapeutics one is struck by the very able manner in which Dr. Jacoby has handled the subject.

Volume I is devoted to electrophysics, to the description of electrical apparatus and the various methods of the use of the same with a special section on Skiagraphy and the Roentgen ray.

Volume II treats of the diagnostic and therapeutic uses of electricity with the various modes of application.

Both books are concise and full of valuable information both for the student and practitioner.

The entire series would undoubtedly be a desirable addition to any library.

A Treatise on the Acute, Infectious Exanthemata.—Including Variola, Rubeola, Scarletina, Rubella, Varicella, and Vaccina, with especial reference to Diagnosis and Treatment. By William Thomas Cortley, M. D., L. R. C. P. Lond.; Professor of Dermatology and Syphilology in Western Reserve University. Illustrated by 12 colored plates, 28 half-tone plates from life, and 2 engravings. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry Street.

The acute exanthemata are exclusively and exhaustively treated by Dr. Corlett, who prefatorily notes the difficulties encountered by the young practitioner in making an accurate diagnosis of any of the exanthemata when the

forms are so many and varied. Then he goes on, in the body of the book, to explain much that is of value to the student and to the old practitioner alike, carefully written and well illustrated as his words are. A valuable chapter on scarlatina is contributed, every form of this disease being treated with minute care, and an able setting forth of fumigation methods finds a place here also. Variola and Vaccinia engage the author's attention for one-third of the text, but possibly this is not too much space to give them. The publishers have done their full share to make the book attractive.

Progressive Medicine, Vol. IV., 1901. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and *Materia Medica* in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 400 pages, 13 illustrations. Lea Brothers & Co., Philadelphia and New York.

The present volume of this well-known quarterly is of special interests to physicians in that it contains the following articles: Diseases of the Digestive Tract and Allied Organs, the Liver, Pancreas, and Peritoneum, by Max Einhorn, of New York; Genito-Urinary Diseases, by William T. Belfield, of Chicago; Anæsthetics, Fractures, Dislocations, Amputations, Surgery of the Extremities, and Orthopedics, by Joseph C. Bloodgood, of Baltimore; Diseases of the Kidneys, by John Rose Bradford, of London; Physiology, by Albert F. Brubaker, of Philadelphia; Hygiene, by Henry B. Baker, of Lansing, Mich.; Practical Therapeutic Referendum, by E. Q. Thornton, of Philadelphia.

A Text-Book on Diseases of the Ear, Nose and Throat. By Charles H. Burnett, M. D.; E. E. Fletcher Ingalls, M. D., and James E. Newcomb, M. D. With Numerous Illustrations. Philadelphia and London: J. B. Lippincott Co. 1901.

Collaboration has been very successful in this volume. Several specialists have combined to put their knowledge into readable shape, and the result is gratifying. Three divisions are made, each one written by a practical man. Dr. Charles H. Burnett, of Philadelphia, writes on diseases of the ear. Diseases of the nose and naso-pharynx are written of by Dr. E. Fletcher Ingalls, of Chicago, assisted by Dr. Otto F. Freer, of the same city. Diseases of the pharynx and the larynx are described by Dr. James E. Newcomb, of New York City. The latest discoveries in the several departments are incorporated in the work by the

writers, who have written thoroughly and with authority. The arrangement of matter commends itself both to the general practitioner and to the specialist.

Phototherapy. By Prof. Niels R. Finsen of Copenhagen. Translated from the German Edition and with an Appendix on the Light Treatment of Lupus by James H. Sequeira, M. D., Lond., M. R. C. P. Edward Arnold, London.

Prof. Finsen's achievements along his chosen line are well known to the profession and his translator has dealt kindly with him. The book consists of three monographs by Finsen, "The Chemical Rays of Light and Smallpox," "Light as a Stimulant" and "The Treatment of Lupus Vulgaris by Concentrated Chemical Rays."

The Principles of Hygiene. A Practical Manual for Students, Physicians and Health Officers. By D. H. Bergey A. M., M. D., First Assistant, Laboratory of Hygiene, University of Pennsylvania. Illustrated. Philadelphia and London: W. B. Saunders & Company, 1901.

Books on Hygiene are by no means rare and Dr. Berger may have had some misgivings as to the reception his book would meet; but it is an interesting work, one that will take a high rank among the other volumes on the same subject. The author has sensibly discarded the terms "contagious" and "infectious," and makes use of "transmissible" instead. Typographically, the volume is admirable.

The Standard Medical Manual. A Handbook of Practical Medicine. By Alfred S. Burdick, M. D., Editor of Medical Standard; Junior Professor of Practice in the Illinois Medical College. G. P. Englehard & Co., Chicago.

A handy book on practical medicine, with the subjects placed in alphabetical order. It is likely to be much used by those who read it.

A Practical Treatise on Materia Medica and Therapeutics, With Especial Reference to the Clinical Application of Drugs. By John V. Shoemaker, M. D., LL. D., Professor of *Materia Medica*, *Materia Medica*, Pharmacology, Therapeutics, and Clinical Medicine, and Clinical Professor of Diseases of the Skin in the Medico-Chirurgical College of Philadelphia, etc. Fifth Edition, Thoroughly Revised. Pages 8-1143. Size 9 $\frac{1}{4}$ x6 $\frac{1}{4}$ inches. Extra Cloth, \$5.00 net; Sheep, \$5.75 net. Delivered. Philadelphia, Pa.: F. A. Davis Co., Publishers, 1914-16 Cherry St.

A Brief Manual of Prescription-Writing in Latin or English for Use of Physicians, Pharmacists, and Medical and Pharmacal Students. By M. L. Neff, A. M., M. D., Cedar Rapids, Ia. Pages 5-152. Size 8x5 $\frac{3}{4}$ inches. Extra Cloth, 75 cents, net, Delivered. Philadelphia, Pa.: F. A. Davis Co., Publishers, 1914-16 Cherry St.

Manual of Physical Diagnosis. For the use of Students and Physicians. By James Tyson, M. D., Professor of Medicine in the University of Pennsylvania and Physician to the University Hospital; Physician to the Philadelphia Hospital; Fellow of the College of Physicians of Philadelphia; Member of the Association of American Physicians, etc. Fourth Edition, Revised and Enlarged. With Colored and other Illustrations. Published by P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia. 1901. 12mo. Cloth, \$1.50 net.

Lea's Series of Pocket Text-Book: A Pocket Text-Book of Venereal Diseases. For Students and Practitioners. By James R. Hayden, M. D., Chief of Clinic and Instructor in Venereal and Genito-Urinary Diseases in the College of Physicians and Surgeons, New York, etc. New (third) Edition, thoroughly revised. In one 12mo. Volume of 304 Pages, with 66 Engravings. Cloth, \$1.75 net. Flexible Leather, \$2.25 net. Lea Brothers & Co., Publishers, Philadelphia and New York.

The Medical News Pocket Formulary, New (fourth) Edition. Containing 1,700 Prescriptions Representing the Latest and Most Approved Methods of Administering Remedial Agents. By E. Quin Thornton, M. D., Demonstrator of Therapeutics, Pharmacy and Materia Medica in the Jefferson Medical College, Philadelphia. New (fourth) Edition, Carefully Revised to date of issue. In one wallet-shaped volume, strongly bound in Leather, with Pocket and Pencil. Price, \$1.50 net. Lea Brothers & Co., Philadelphia and New York. 1902.

Progressive Medicine, Vol. IV., 1901. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, bound in cloth, 400

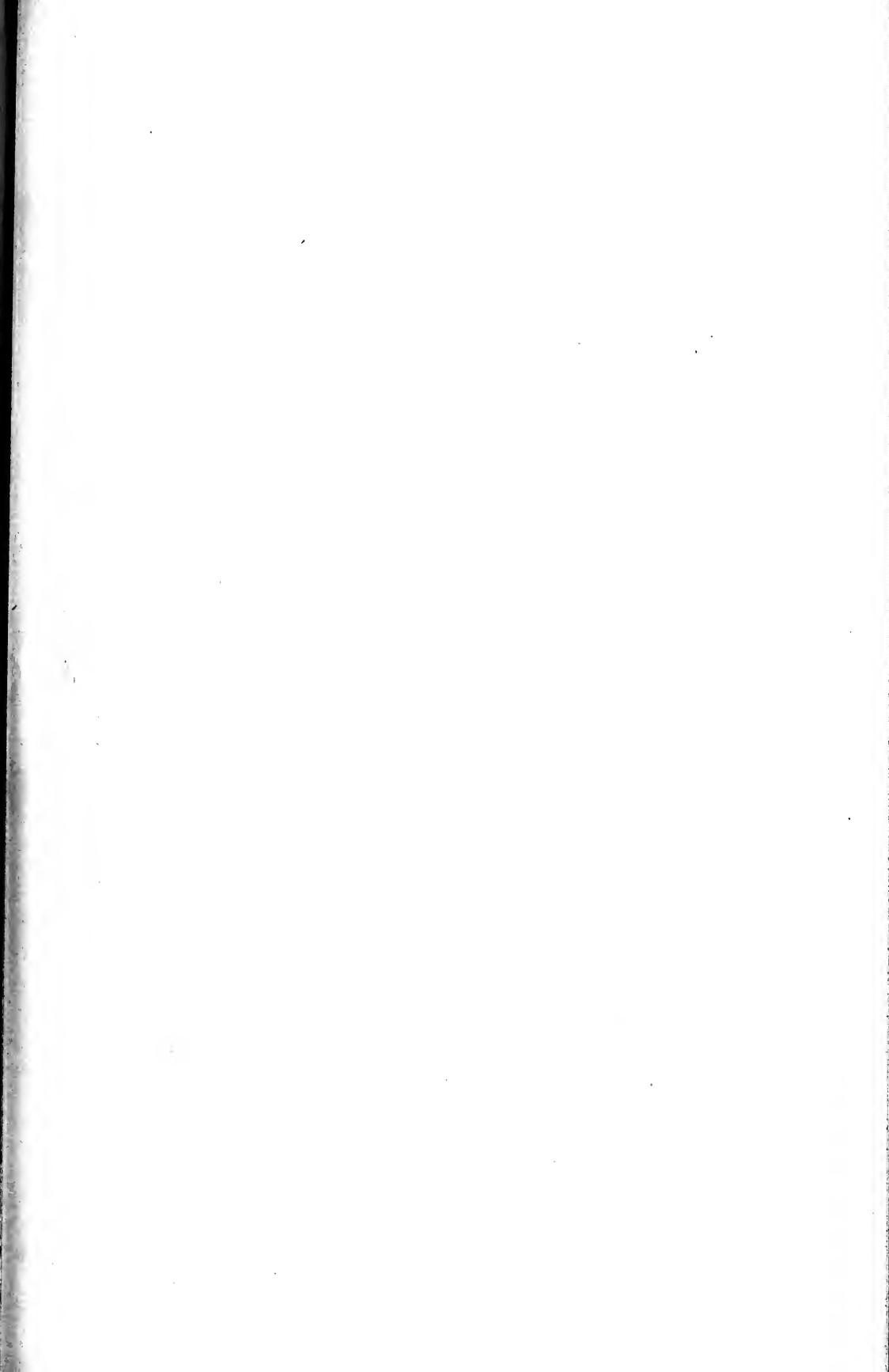
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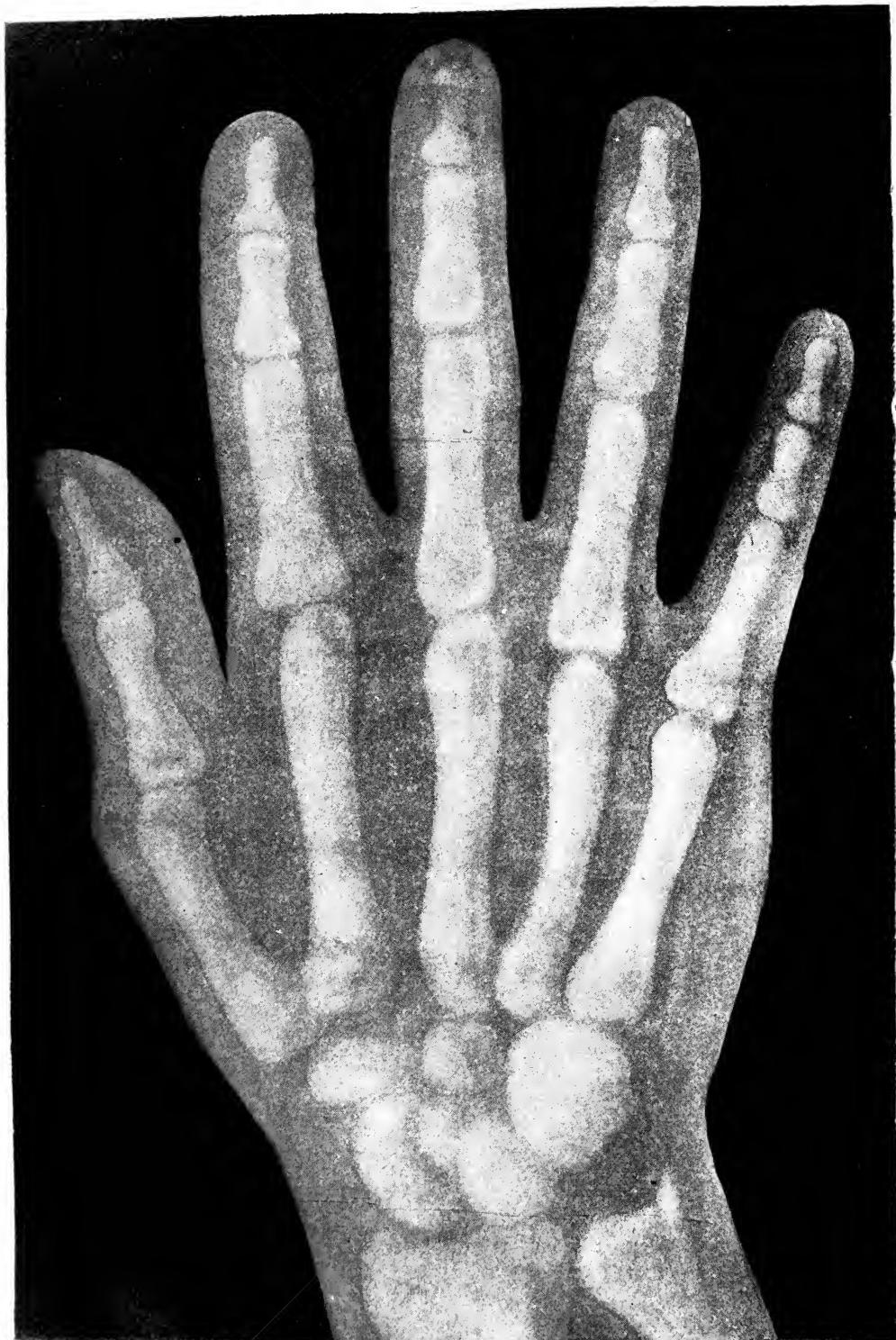
The Practical Medical Series of Year-Books, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly Under the General Editorial Charge of Gustavas P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume I. General Medicine. Edited by Frank Billings, M. S., M. D., Head of Medical Department and Dean of the Faculty of Rush Medical College, Chicago, with the Collaboration of S. C. Stanton, M. D. October, 1901. Price of this Volume, \$1.50; Price of the Series, \$7.50. Chicago: The Year-Book Publishers, 40 Dearborn St.

Operative Surgery. By Joseph D. Bryant, M. D., Professor of Principles and Practice of Surgery, Operative and Clinical Surgery, University and Bellevue Hospital Medical College, etc. Vol. II. Operations on Mouth, Nose and Oesophagus, the Viscera Connected with the Peritonæum, the Thorax and Neck and Penis, and Miscellaneous Operations. This Volume contains 827 Illustrations, 40 of which are Colored. New York. D. Appleton & Company. 1901.

"No Catching."—A pretty teacher in a country school had a profound dread of small-pox and was most energetic in backing up the efforts of the local board of health. It came to her ears that the mother of one of her pupils was confined to bed with a mysterious disease, and she at once jumped to the conclusion that it was small-pox. She put the pupil to a rigid cross-questioning, but without obtaining from her any information as to the nature of the illness. She then sent the child home with positive instructions to find out the nature of the disease and equally positive orders to remain at home should the malady prove to be contagious.

Next morning the little girl appeared among her classmates; the teacher observing her exclaimed: "Jenny Thompson, are you here again; hasn't your mother got the small-pox?" "If you please, ma'am," said Jenny, "ma mither says it's a boy, but it's no catchin' if your careful."—(*Exchange.*)





POSITIVE PRINT IN SEVEN MINUTES.

SEE ARTICLE ON "SIMPLICITY IN X-RAY PHOTOGRAPHY,"
DETROIT MEDICAL JOURNAL MARCH, 1902.

DETROIT MEDICAL JOURNAL

ORIGINAL ARTICLES

SIMPLICITY IN X-RAY PHOTOGRAPHS.

The purpose of this brief paper is to treat of a method of obtaining a usable print of a photograph made with the Crookes tube, within a few minutes after exposure has been made—something that the writer believes will be of interest to every physician who is interested in the study of photography as it concerns the work of his profession. Even within a comparatively short time, so much has been done with photographs taken with a Crookes tube that photography may be said to have assumed a very important place in operative technique. And it is with a view of presenting a speedy method of obtaining a positive print that this paper is written.

There are several drawbacks to the method of obtaining a positive print commonly in use. When the positive plate is first obtained, it is customary to make a negative plate and from this a positive print, in order that the physician may have at hand something from which he can work without bearing constantly in mind the fact that he is, as it were, looking in a mirror. The length of time necessary to allow the plates to dry is a seri-

ous inconvenience in X-ray photography, inasmuch as it gives an opportunity for untoward symptoms to develop in the patient while the physician is waiting to operate.

The method in question, the success of which was shown to the writer by Dr. Henry H. Cook, and by which the subject for the half-tone in this edition of the DETROIT MEDICAL JOURNAL was made, commends itself for its simplicity.

A developing instead of printing-out paper was used and a sheet of 8x10 paper of this class was placed in a light-proof envelope in a darkened room. The paper was a little slower than a rapid plate would have been, but in skiagraphy, for clearness of detail a slow plate is desirable. Some little light leaked into the room, but not enough, apparently, to interfere with the success of the exposure. The sensitized paper was placed sensitized side up on a table at which the writer sat, his right hand resting flat on the envelope, which was placed with its center about seven inches from a No. 9 Crookes tube, of German make. The static machine was started and exposure was made for two min-

utes and ten seconds, the additional time being allowed to compensate for any time the machine might not have been running at its full speed. The room was, of course, dark with the exception of the light from the tube. When the exposure was completed the machine was turned off and the work of developing began at once.

What is known as Tolidol developer was used, the customary addition of one or two drops of a 10% bromide solution being made to act as a restrainer, to keep the print from developing too rapidly. The paper developed almost immediately and was kept in the developer until the outlines of the fleshy parts of the hand were distinct, when it was placed in an acid fixing-bath. The whole operation, from the time of exposure to the fixing of the print, was about *seven minutes*. By this time every detail of the hand was clearly visible, the clearness being heightened as usual when the proof was held up to the light. Washing the proof in water followed, as a means of preservation for the purpose of reproducing in half-tone, but as far as all ordinary purposes were considered, the proof was ready to be used at once.

It could have been perfectly used as a guide for operation, after simply drying it between two thicknesses of blotting paper.

This description is published for the benefit of members of the profession who may have at some time or other occasion to obtain a photograph of an injured member immediately, in a case in which time is of great value. The same method may be followed out along the same lines when it is desired to make several copies from a plate, by simply printing a negative plate from the positive proof first obtained and then printing positives from the negative. If it is desired to make a number of prints for class purposes, it is an equally simple matter. The number of proofs that may be desired are simply placed in the envelope together, care be-

ing taken to have the sensitized side up in all cases, and then exposure is made in the customary manner. They can all be developed and fixed at the same time, doing the whole business on a wholesale scale.

Dr. Cook has not as yet made any experiments with photographs of the thicker regions of the body, but he is confident that the same methods will give equally good results, care being taken to insure a proper period of exposure, that the paper may develop properly. Knowledge of the principles of ordinary photography is an essential to success in photography with the Crookes tube and the physician who is also an amateur photographer may profitably spend much of his time in experimentation with this means of photography.

Vaccination.—Dr. F. M. Crandall, writing in *American Medicine*, says, among other good things: The immunity conferred by vaccination is in direct proportion to the thoroughness with which it is performed, and this is shown with considerable accuracy by the character and number of the resulting scars.

Vaccination in infancy alone is not sufficient to wholly prevent small-pox among the adult population.

Optional vaccination has not proved sufficient to protect the community from small-pox. Compulsory vaccination is measure warranted by more than a century of experience.

The mild compulsion enforced in the country, by requiring vaccination or evidence of its recent performance upon admission to the public schools should have the hearty support of the parents and physicians alike.

Philadelphia College of Physicians. The library of the College of Physicians of Philadelphia, is now one of the largest medical collections (numbering 64,900 volumes) in this country. In many respects, especially in old and exceedingly rare medical prints, the library is unequalled.—(*Clinical Review*.)

FACIAL ERYSIPelas.*BY P. S. ROOT, M. D.
Monroe, Mich.

Some months since I had the misfortune to lose a case of facial erysipelas, the first case of this form of erysipelas that I have seen die. Every year we all see more or less of this disease and yet, I am constrained to believe that the rate of mortality must be extremely low and consequently the prognosis generally favorable. However, it is the unexpected that is likely to occur, and in this connection I beg leave to direct your attention to a few general considerations and incidentally report the case to which I have alluded.

Erysipelas, as a diseased manifestation, is probably as old as the history of medicine. Formerly the disease was regarded as due to some peculiar poison which had found entrance into the system. Facial erysipelas was generally looked upon as idiopathic, but is now known to be an acute specific infectious inflammation caused by the streptococcus erysipelatis, the point of infection of which is doubtless always a traumatism, be it ever so slight. This coccus, as an etiologic factor, was first demonstrated absolutely by Fehleisen in 1883, he having produced the disease in animals by inoculation with pure cultures of this germ. Efforts have been made to divide the streptococcus Pyogenes into different species in order to account for the various results following infection by seemingly identical coccus. To illustrate: we may find this bacterium in boils, carbuncles, diphtheria, follicular tonsilitis, tuberculosis and puerperal septicæmia, in each case exercising a somewhat different role. So also do we find different degrees of severity in erysipelas. Witness, if you please, the terrible loss of life during the War of the Rebellion from hospital gangrene, a tra-

umatic erysipelas. How then shall we explain these discrepancies? Bacteriologists do not agree in their efforts or results when it comes to differentiating species according to pathological evidences. In fact, it is pretty generally admitted that no such division of species can be substantiated.

We must therefore, it seems to me, attribute the multiple relations of this germ to natural causes—causes whose "why" and "how" are yet undetermined.

The great chemical laboratory of the human body holds many secrets yet to be unfolded by scientific investigation. It seems probable, however, that the environment of this germ has much to do with the virulence of its toxin. By this I mean if we have a healthy and well-nourished cell protoplasm, we are likely to get only a mild degree of toxæmia. On the contrary, if we have erysipelas in a patient previously exhausted by disease, or suffering from some form of auto-intoxication, we may have all the requirements of a prime culture fluid. It follows then that the contest must be between the vital resistance of the tissues and the potentiality of the toxin.

Facial erysipelas is common, while the traumatic form of years ago has about ceased; so also has the puerperal form. This followed closely the advent of the use of antiseptics, and cleanliness. All forms of erysipelas are contagious. Especially is this true where wounded surfaces are exposed. In hospitals and even private houses no persons with wounds should be allowed anywhere near the erysipelas patient. Isolation should always be enforced. Let me further admonish you not to confine women while attending this disease.

As to symptoms, it is hardly necessary to more than briefly outline. The inflammation begins as a small patch usually near the nose, but may show itself at the ear or eye. In a case recently under observation, the disease commenced in

*Read before the Monroe County (Mich.) Medical Society, January 23, 1902.

front of the ear. From a small patch of redness the swelling extends, accompanied by fever and perhaps chills, with increasing debility. About the second day the tumefaction will have involved one side of the face, presenting that characteristic board-like feeling. The temperature will vary from 101 to 106, pulse 100 to 120, the tongue will be coated; the appetite lost. Almost from the first the urine will be found to contain albumen, the amount generally depending upon the severity of the attack. In very mild cases, perhaps, but one side of the face becomes infected. More often the swelling extends all over the face, becoming pronounced about the orbital tissues; so much so as to close the eyes. The center of the swelling becomes darker while at the edges may be seen a light flush, which marks the advance of the bacteria along the lymph channels. Patients constantly complain of a burning or smarting sensation over parts involved. Blisters are quite likely to form and sometimes pus-gangrene, but rarely. These active symptoms usually last from ten days to two weeks. The constitutional symptoms come more and more in evidence; typhoidal conditions sometimes supervene, accompanied by delirium and profound prostration. Among the complications are infrequently seen meningitis, endocarditis, nephritis and pneumonia.

As to the matter of treatment, the agreement is almost universal that it should be along the lines of antisepsis. Locally we may use moist applications of 1 to 500 or 1 to 1000 bichloride, 1 to 50 carbolic acid, etc.; to limit the spread of the inflammation, injections of a 3% solution of carbolic acid along the line of advancement, or painting a line with nitrate of silver solution or tincture of iodine. So far as my observation goes these attempts at limitation are usually fruitless. Personally I have found ichthyol to be more generally beneficial than any other remedy as a local application. I apply

it in 10 to 25% ointment, or what is perhaps more cleanly, a solution of ichthyol in collodion after this formula:

Ichthyolis	3I
Aetheris	3I
Collodion ad.....	3I

This may be applied with a brush twice a day. The eyes should be cleansed with a saturated solution of boric acid. Should a high degree of chemosis develop, the conjunctiva may be divided so as to diminish tension of the cornea. It may even be necessary to divide the external canthus. As to constitutional measures, of prime importance is the administration of nutritious and easily digestible food, such as egg-nog, milk, beef-juice and liquid peptonoids. Medication should be antiseptic and tonic. Triturate chloride of iron in full doses frequently repeated has stood the test for years. It is perhaps more generally used than any other remedy and possibly deservedly so, for by it we get a more immediate result than from any other form of iron. Besides this agent we should give quinine, strychnia and salol or sod. salicylate. The indication for one of the latter agents is to procure as far as possible an aseptic condition of the stomach and bowels. Daily examinations of the urine should be made, noting the amount and per cent. of albumen. There will frequently be found a mild nephritis in most forms of infection caused by this germ, which, if allowed to go unheeded, sometimes results seriously. Finally, I wish to allude to a specific treatment, which though comparatively new, is likely in the near future to become an ideal method for the control and cure of this disease. I refer to the use of anti-streptococcic serum. This serum is produced in the same manner as the anti-diphtheritic serum, except that the toxin of the *Coccus Pyogenus* is used instead of that of the Klebs-Loeffler bacillus. The use of this agent has not been followed by uniformly successful results, but this may be due largely to delay in its admin-

istration. If for any reason the system shall have become so thoroughly saturated with toxin as to practically paralyze all vital functions, we can have little hope of benefit from the exhibition of any remedial agent. I further call your attention to one other remedy, which perhaps, merits the designation of specific in this and kindred forms of disease.—This is nuclein. The vital principal of life, so far as corporal existence is concerned, is resident in the cell, and the nucleus of this cell is largely composed of nuclein. It follows therefore, if we wish to stimulate the resistance and nutrition of this cell by any tonic, nuclein may justly claim a trial. We know, further, that the leucocytes are nature's army, designed to repel the invasion of all species of germs. Hence, if we are able to reinforce this defensive army, we shall offer greater security against disease. In nuclein we have an agent whose most objective action is to induce leucocytosis. The inference is therefore plain.

Vaughan has commended nuclein in different forms of streptococcic infection, and, personally, I have seen most happy results follow its use in carbuncles, ulcers and follicular tonsilitis. In erysipelas I have not given the remedy a trial, but shall do so with the next case that presents itself. It has many advocates in puerperal infection, and hence, it seems to me, we may employ nuclein with considerable hope of conserving the vitality of the tissues, both as a tonic and a producer of phagocytes.

The case, to which I have referred, was Mrs. J. M. C., aged about 47 years, a large fleshy woman. She consulted me at my office on June 20, 1901, complaining of a slight swelling on the left side of the nose. This swelling though slight, had the appearance of beginning erysipelas, and I told her so, requesting her to keep me informed. On June 21st I was called to her home, where I found a mild case of facial erysipelas. She had a tempera-

ture of 100, pulse 96 and tongue coated. The tumefaction increased gradually, involving the orbital tissues of the left eye; at no time was this swelling severe or unusual, nor did the pulse or temperature indicate any serious constitutional infection up to two days before her death. There developed a slight protrusion of the eyeball, but her eyesight was good until the day before her death, when, while I was examining the eye, she became blind. Dr. Leartus Connor, of Detroit, Mich., saw her during the afternoon of June 29th, and made numerous efforts to reach pus at the back of the orbit, but none was found. She became septic and died during the evening of the following day. In the meantime the erysipelas had extended to the right side of the face with only moderate swelling. The temperature at no time went above 102, but the pulse was 120 on the day of her death. The urine contained about 1% albumen, but the amount was 1500 c. c. with specific gravity of 1.019. The patient remained conscious until shortly before her death.

I may observe that a small pus cavity formed in the left cheek, which was promptly opened and cleansed. It is certainly a little difficult to account for this woman's death, with symptoms so mild. Possibly the septicaemia was the result of a mixed infection. My only regret now is that I did not make a bacterioscopic examination of the pus. There was probably an abscess within the orbital cavity, and yet at no time was there fluctuation or was it possible to reach pus. It seems also unusual that an abscess should have developed at the posterior part of the cavity without some cerebral manifestations. There is little question but that the orbital cellulitis resulted in the destruction of the eye, and that with but a moderate degree of swelling, and a cornea, whose nutrition had not been seriously impaired by inflammation. Had a post mortem been permitted, the findings

would doubtless have thrown much light upon this somewhat obscure case, the fatal termination of which shows that we should not be too sanguine in our prognosis.

Monroe, Mich.

Appendicitis.—Dr. J. B. Deaver, of Philadelphia, writing in the *Medical Review*, emphasizes the fact that *every death from this disease, in an individual otherwise well, excepting those of the fulminating type, could have been prevented by an operation at the right time.* He says: "An early diagnosis is necessary if operation is to be performed early, and especial stress is therefore laid upon the early diagnosis. If the three cardinal symptoms of appendicitis are kept in mind, the early diagnosis in nine cases out of ten is very simple. These symptoms are pain, tenderness and rigidity. Sudden abdominal pain in a person previously well is the first point. Pain, sudden in onset, general or localized to any part of the abdomen, is usually the first symptom. The tenderness may be at first general or local, and a valuable diagnosis point is general abdominal pain with tenderness limited to McBurney's point. This tenderness is confined to a small area elicited by the pressure of a single finger. Pressure in other points of the abdomen often causes pain not where the pressure is applied, but under McBurney's point. Rigidity is nearly always present from the outset, but can sometimes be demonstrated only by the most delicate and gentle touch. Taken collectively these three symptoms present a picture that cannot be mistaken in 90 per cent. of cases. The diseases hardest to distinguish from appendicitis in the early stages are typhoid fever, extra-uterine pregnancy, cholecystitis, and acute mechanical obstruction of the bowels. The only justifiable excuse for delay in operating is uncertainty of the diagnosis, and in case of doubt, it is the duty of the physician to seek counsel to settle the question as soon as possible. The ideal time to operate is in the stage of appendicular colic, before inflammation has taken possession of the appendix. In the author's experience, the percentage of intestinal obstruction after operation is comparatively large; this condition appears ten days, two weeks or more after primary operation. Upon the appearance

of paroxysmal abdominal pain, nausea, inability to pass flatus or to have the bowels moved by simple purgative medicines aided by high enemata through the rectal tube and given with hydrostatic pressure and with the presence of slight tympany with paroxysmal pains provoked by gentle palpation of the abdominal wall, abdominal section is immediately advised, and often prevents the death of the patient." Other important points in the technic of the operation are mentioned.

Treatment of Typhoid Fever.—Dr. Boot, in the *St. Paul Medical Journal*, writes an interesting article on typhoid and makes the following observation: "The constitutional infection by the bacillus typhosus causes a disease that cannot be aborted or materially shortened by any of the means now at our command unless it be by some form of antitoxin that the most of us are not familiar with. But, the secondary infection not being a constitutional infection in most cases, can be done away with to a certain extent, if not altogether, and that part of the course of the disease that comes from the secondary infection can be shortened and at times done away with altogether. Just what the length of the disease would be if we could have an unmixed infection by the bacillus typhosus I cannot say. It seems to me that the specific action of the bacillus typhosus is nearly at an end by the middle of the third week. In children the intestinal ulcerations are absent at times and are usually less extensive than in adults. This disease usually runs a shorter and less severe course in children. These two facts seem to me to be correlated, and the absence of secondary infection accounts for both of them. This being the case we should try to do away with this secondary infection and we should expect any means that would tend to do away with it would shorten the disease and make the symptoms milder."

Neuralgia.—

Camphor gum, powd....	1 drachm
Chloral hydrate.....	2 drachms
Chloroform	4 drachms
Alcohol	4 drachms
Label "Poison."	

POST PARTEM TREATMENT.*

BY C. E. BOYNTON, M. D.,
Los Banos, Cal.

After the child is born it is not safe to leave affairs to Nature, especially as regards the condition of the bowels.

The regulation dose of Castor Oil, or better Aromatic castor oil, generally works promptly, but oftentimes a tendency to constipation follows parturition, when moderate laxatives seem to fail. If the laxative is continued and the bowels remain constipated, we may confidently expect trouble. Two cases of phlegmasia dolens, from the practice of other physicians, have recently come to my notice—the result of not having paid sufficient attention to keeping the bowels in order.

Mrs. A.—Was slow in labor and her physician called me in consultation. The bowels were blocked with faeces, but this condition was relieved by high injection, made difficult by the low position of the head. The child was born in less than two hours. The attending physician then conducted the after treatment; Result, constipation and phlegmasia dolens.

Mrs. B.—Confined by a local practitioner. On the third day the right leg began to swell and on the eighth or tenth day the writer was called to the case. Here was another instance of intestinal, or rather, rectal inertia. The attending physician had cleaned out the womb faithfully and had probably given cathartics. The swelling in the leg was intense from the mid-thigh to the foot and the patient was in great pain. However, a local application, under a well fitted bandage, stopped the pain in half an hour, though the fever ranged from 103 to 105 degrees. Enemas and a ten-grain dose of calomel, with all the Sulphate of soda the patient could take, brought from the bowels a mass that would have poisoned a rhinoceros. And the woman got well.

An almost certain way to avoid septic trouble after confinement is:

1st. To use Aromatic castor oil $\frac{3}{4}$ ss twelve hours after the child is born.

2nd. If there is tendency to constipation, give a mild laxative in divided doses three times a day.

3rd. If the above laxative does not move the patient sufficiently, give soap and water enema.

4th. With the slightest suspicion of constipation, give sulphocarbonates and calcium sulphide.

5th. The danger of phlegmasia justifies giving full doses of quinine, which will dry up the milk oedema within the tissues and of course the breast milk as well.

6th. Echinacea, Sp. Tr., Poke root, Sp. Tr., Atropia and large doses of calomel help us out in these conditions.

7th. Of course the douche-čurette, with H_2O^2 , Creolin and other antiseptics should be used as required, and before they are required.

The writer attributes his twelve years of obstetric success to the fact that he treats trouble in advance and instead of trusting to luck is always on the lookout for luck to change.

Los Banos, Cal.

High Retraction Ring's Contraindication to Version.—*The Medical News* says the following in this connection:

Dr. Rudolph W. Holmes read a paper on this subject before the Chicago Medical Society, February 5, 1902. He said that the retraction ring as a product of normal and abnormal labor is not given a proper recognition in American textbooks; it is considered so unimportant that hardly a paragraph is given to the discussion of the ring, threatened rupture, etc., and its contraindication to version. The reports of two cases are given, occurring in a European clinic, in which version was done with a high retraction ring at the umbilicus; in one case death resulted from rupture of the uterus; the other patient fortunately escaped.

*Written for the Detroit Medical Journal.

THE TREATMENT OF GLEET.*

BY W. A. HACKETT, M. D.

Prof. of Dermatology and Venereal Diseases, Michigan College of Medicine and Surgery, Detroit.

"It is more than likely that nothing new has been thought, spoken, written or done these 500 years past. The Lord, only, knows how many centuries have elapsed since the last original idea was put forth; the last original action accomplished. The human brain is at once so industrious and so limited in scope that it must have exhausted very early in the life of the race, all the initiative material with which it was permitted to deal. Since then, we have been re-thinking dead men's thoughts, reiterating their words; inventing their marvels, anew, traveling around a well-trodden circle but adding a touch of humour to the treadmill task by believing we are doing it all for the first time, that the others whose footprints we are obliterating were a pitiful lot in comparison with ourselves." These are the opening words of Robert Barr in one of the chapters in that excellent political story, entitled, "The Victors," and are they not often true when applied to the Science and Art of Medicine and Surgery? It is very difficult in this age to bring forward anything new in the treatment of disease. I only propose, in this paper, to travel around the well-trodden circle and to try to impress upon you some of the best methods of handling these obstinate cases of gleet.

Acute Urethritis becomes chronic after it has lasted for ten or twelve weeks, the discharge still continuing. The chronicity is often due to indulgence in liquor, or coitus during the declining stage or else treatment has been neglected in the early stage or has been too energetic. In the anemic, debilitated, neurotic and

scrofulous patients, urethritis tends to become chronic.

When the posterior urethra is involved, the following symptoms are usually noticed:—

(1) The discharge is very slight and serous.

(2) Nocturnal pollutions are apt to occur accompanied by a dull painful sensation in the region of the prostate.

(3) Urination is frequent and painful.

(4) The urine contains ragged shreds, which sink rapidly to the bottom of the vessel.

There is no one method of treatment, which can be carried on in all cases, but it requires a good deal of judgment in the selection of methods suitable in different cases.

In old cases of gleet, internal remedies will not be of much benefit, yet in combination with local applications, they are useful. The balsams have a tendency to diminish suppuration by stimulating the urethra and when the urine is cloudy, their use clears it somewhat. Copaiba, Cubebs, and Santal Oil either alone or in combination with others are useful in capsules or emulsions. Some patients cannot take them at all as they are rather hard on the stomach. The best tolerated of all is the Santal Oil, which may be combined with Methylene Blue, but the benefit is only temporary. It is not advisable to give any of the balsams for a longer period than a week for fear of overstimulating or irritating the kidneys or urethra.

I have found the urinary antiseptics to be useful in the treatment of gleet. Most of them are salicylates, in which carbolic acid is excreted in the urine, rendering it antiseptic and less irritating to the inflamed surface of the bladder and the urethra. Besides ammoniacal decomposition of the urine is prevented by the acidity being maintained. In my practice, salol combined with boric acid has given good results as a urinary antiseptic.

*Read before the Wayne County Medical Society, February 6th, 1902.

tic. Of course, it should be stopped as soon as the urine becomes dark or smoky in color; but as a rule, salol can be given in 10 grain doses, three times a day, for three or four days at a time, without the least danger.

Urotropine has a powerful germicidal action and keeps the urine acid. It can be given in doses of 5 to 10 grains three or four times a day. Its action is due to formaldehyde which is liberated by the presence of uric acid. It arrests ammoniacal decomposition, diminishes suppuration, relieves painful urinary tenesmus and is a good preventive of urinary fever, following instrumentation.

In the anaemic and debilitated, tonics are required. In patients, suffering from insomnia and neurasthenic conditions or sexual excitability, it is often necessary to give bromides and opiates.

Local Treatment:

This is necessary and very important. The posterior urethra requires to be washed with some force in order to clean the surface and reach the glands. This is accomplished by means of irrigation, which can be done with or without a catheter. I prefer the soft rubber catheter, as through it the fluid can be injected without exposing the whole urethra to unnecessary painful distention. In recent acute anterior urethritis, lavage without the catheter is advised, but for a chronic, posterior urethritis, irrigation through a recurrent catheter is better, using Silver Nitrate, 1 to 5000. I have used with success solutions of Protargol and Albargin, 1 to 1000, and they have this advantage over Silver Nitrate, that they are less painful.

In the chronic cases, stronger solutions are required, the strength being increased gradually. The medicated fluids should be warm and used about every second day.

In order to heal the eroded and ulcerated patches in the urethra, resort must often be had to instillations of small

quantities of concentrated solutions, viz.:

Silver Nitrate $\frac{1}{2}$ to 1% in strength. This may be repeated every third or fourth day. By the use of an electrical endoscope, these spots can be seen and touched up.

To assist in the reabsorption of the infiltrated patches, pressure must be used, which is practiced by means of sounds. The sounds are introduced only once a week, their calibre being gradually increased and they are left in for five to ten minutes. Also grooved sounds may be used in some cases, in which the treatment consists of the use of ointments. Medicated bougies act in about the same way as the salves, but neither are very beneficial.

Electrolysis has been good results in the hands of some, and dilators in the hands of others. If dilatation is used, it must be repeated at intervals of one or two weeks in order to give time to these fissures to heal. The patient may in the meantime continue his injections with a mild solution of Permanganate of Potash and the urethra can be treated with instillations of Silver Nitrate, Protargol, or Albargin until the disease has completely disappeared.

The patient is not considered cured so long as pus or shreds are found in the morning urine, even if gonococci are absent. Some urethral lesions must be present and the discharge may be infectious.

It is the duty of the physician to examine the morning urine a number of times before giving an opinion in regard to marriage. At least one year should elapse after the disappearance of the discharge before patient is allowed to marry.

94 East Adams Ave.

French Births and Deaths.—During the year 1900 the excess of deaths over births in France was 25,998.—(*Exchange.*)

STERILITY.*

BY HENRY H. COOK, M. D.,
Detroit, Michigan.

At the present time the subject of sterility is receiving considerable attention from the medical profession, and rightfully so, because it has been greatly neglected in the past. It has been stated upon good authority that sterility is rapidly increasing and the principal reasons given for the increase are, the frequent production of abortion, and gonorrhœal infection.

The society life of a woman seems in many instances to be of more importance than home life and if she happens to become pregnant she tries to bring about an abortion rather than complete the term of pregnancy. Later in life this same woman may desire to become a mother, but, owing to the frequent miscarriages of earlier years, soon after conception takes place she aborts.

Gonorrhœal infection is accountable for many sterile marriages, but whether or not this, as a causative factor, is on the increase, I do not intend to discuss at this time. Aside from sterility as the result of these two causes, there are cases which have never miscarried and never suffered from gonorrhœal infection who do not become pregnant. Yet they are very desirous of having children and thus seek the aid of a physician to discover the cause of the sterility and if possible correct the difficulty, that their ambitions of motherhood may be realized.

Among the many etiological factors of sterility we have:

1st. Non-development of the generative organs, the uterus in particular.

2nd. Stenosis of the cervical canal, either as the result of a narrowing of the lumen of the canal, which narrowing may be caused by some displacement of the uterus, either an anterior or posterior

version of flexion, or a constriction at the external or internal os, or both.

3rd. Chronic Endometritis.

4th. In women who have borne children, laceration of the cervix is a frequent cause of sterility.

5th. Malformation of the cervix, as an elongation.

The above are the most frequent causes of sterility and hence will receive attention at this time.

The first thing to be done in all cases of sterility is to make a thorough local examination of the generative organs, that the physician may determine if possible the true condition in the case at hand and thus be better able to overcome the difficulty.

At the time of puberty the establishment of the menstrual function marks the starting of a new period in the girl's life. She develops physically and mentally and at the same time we should have a development of the generative organs. But in some instances, from overwork, either mental or physical, or some other cause, this process is stopped and these organs do not mature.

In women who have been married for several years and yet have never conceived, local examination will many times reveal these peculiar conditions of non-development. The uterus is very small, often misplaced, and the lumen of the cervical canal is narrowed. As has been stated, this non-development was probably produced by overwork, which debilitated the patient and the debility produced an anaemia, thus depriving these organs of their proper nutrition. This points out our line of treatment.

We must endeavor in some way to bring about a more perfect nutrition, by increasing the local blood supply. It is in this class of sterile women that electricity plays such an important part in the treatment. With the negative pole of the galvanic current placed in the uterus and the positive or indifferent pole

*Written for the Detroit Medical Journal.

placed on the abdomen, gradually turning on the current until from 10 to 15 milliamperes are reached and then turning the current off and on, by what is known as the swelling method we may dilate any stenose and at the same time increase the local blood supply, thus improving the nutrition.

If there is a coexisting general anaemia, this must receive proper consideration before we can hope to have results from our local treatment.

Stenosis of the cervical canal, due to a displacement of the uterus, must be overcome by correcting this displacement. There are many plans suggested for this, both palliative and operative, but the surgical treatment has not proved as satisfactory as was hoped. The best results are accomplished by stimulating the nutrition by means of the galvanic current, restoring the uterus to a position as near to normal as possible at the time of each treatment and supporting it in place by the use of tampons.

Stenosis due to a constriction of the external or the internal os must be treated by dilating the constriction. This may be accomplished in several ways, either by means of graduated dilators, gradually stretching the constricted portion, rapid dilatation while the patient is under the influence of an anaesthetic, or by the galvanic current of electricity, the negative pole being employed.

The later method is preferable in that it is not painful. No anaesthetic is necessary and the results are more lasting than those from either of the other methods.

Chronic endometritis not only produces a poor soil for the implantation of the ovum, should it become impregnated, but the excessive discharge from the uterus, which is a characteristic of this condition, prevents a possible conception and must be overcome before the woman can become pregnant.

Applications to the endometrium are in

some instances of benefit but in others they are useless.

Here again galvanism comes to the rescue. Previously, the dilating effect of the negative pole has been spoken of, but in this class of cases we desire not a dilatation, but rather a constriction of the parts. So we employ the positive pole.

If we do not wish to use electricity we may curette the uterus, and gain the desired result. But this requires an anaesthetic and a rest for the patient of several days in bed, while the electrical treatment requires neither of these and produces equally good results. Laceration of the cervix usually produces an irritation which causes an excessive leucorrhœa and this may prevent conception. But if conception takes place, abortion may follow; and one abortion predisposes to another and may lead to sterility. This can best be treated by repairing the laceration.

Malformation of the cervix, such as an elongation, although a rare condition, is occasionally found and is best treated by amputation of a portion of the cervix.

270 Woodward Avenue.

Influenza Complicating the Ear.—Dr. S. M. Smith, in the *Philadelphia Medical Journal*, says: “‘Hæmorrhagic otitis’ has long been known as the distinguishing feature of otitic influenza. Mastoid implication is, however, present in all severe cases, a large number of which require operative interference, and meningitis, lateral sinus thrombosis, intracranial and extradural abscesses as sequellæ are encountered more frequently in each succeeding epidemic. It is well to examine the aural discharges for the presence of the bacillus of influenza. As regards treatment and prophylaxis, emphasis is laid on attending to aural complications at the very inception of the attack. Absolute rest in bed, with free diuresis, dia-phoresis, catharsis and restricted diet, are followed by local measures, such as hot instillations, not necessarily medicated. Blood-letting in front of the tragus, to be effective, must be early. As soon as the membrana tympani shows any distention it should be incised. Hot irrigations should be followed by thorough drying and insufflation with aristol or nasophen.”

THE SOUP STONE.
BY DR. J. S. SPRAGUE,
Stirling, Ont.

When a lad I often heard my venerable grandmother tell the simple story of the man who traveled through this section of the country, known as the Quinte district. It was then sparsely settled and the first settlers were from the bordering States. The man who thus traveled was financially embarrassed and was evidently the possessor of many wiles. Probably he first saw the glimmer of the moon in that State in which wooden nutmegs grow. To relieve his gastric irritability from want of nutrition, this man who traveled announced to the credulous wives his possession of a wonderful soup stone by which, when placed in a pot with additions thereto which he would name, the finest and most nourishing soup would be produced. He added that the cost of the wonderful soup stone was only \$5. Such incentives were enough in those days and he usually made his sale very easily, afterwards being invited to "set in," which he did and with Falstaffian appetite. He praised the soup and at the same time complimented the good wife on her good fortune on being the possessor of such a treasure. He then departed in search of others equally credulous; and many such he found.

In due time, remembering that dupes are always at large, and thinking of his successful career among them he resolved, after a month's qualification in a drug store to play the fakir on a still larger scale. With this end in view he mixed one ounce of antifebrin and one pound of Soda Bicarb., called the same XXX and sold it at \$1 an ounce. He was thus able to realize a profit of between \$12 and \$14 on each pound that he sold. The poor misguided doctors—located everywhere—often received pin cushions, blotting pads, pictures and picture-books, calendars and so forth, each of course bearing evidence that *this* remedy was en-

dorsed by a host of M. D.'s, who never read medical ethics and in fact never heard of them. Often some medical journals (some extra good ones) bore full advertisements of XXX and their editors announced—no doubt well paid for their trouble—the superior merits of the said preparation, *ethical* as it was called by the editors and of course by the XXX Pharmacal Co.

The man who sold soup stones in his early life sent his "ethical" compound to every doctor. So kind of him! He also gave some choice prescriptions, one for theague:

R	XXX	30 grains
	Quin. sulph.....	2 drachms
	Aq. pura ad.....	4 ounces

Sig.—as ordered by the physician.

Another, equally valuable, for indigestions:

R	XXX	20 grains
	Pepsin	1 drachm
	Bis. Subnit.....	10 grains

Another, equally valuable, for a laxative:

R	XXX	20 grains
	Pulg. Rhet.....	20 grains
	Aloes Soc.....	10 grains

"Soup Stone" had, or rather has, a relative who was evidently a near connection. He mixed pipe clay in a powder with glycerine and with thymol, we believe, and this ethical preparation recently had its prescription in some very decidedly ethical Journal. Although of recent birth, Antifeverine is well endorsed by many decidedly green M. D.'s. The Soup Stone Chemical Co. rejoice and hope that the boys will paste and plaster their patients well; and they are thinking of giving presents of trowels and mortarboards—or shekels—for a good testimonial and liberal purchases.

Soup Stone's brother, way out west many years ago made a fortune by mixing sour beer and aloes, under the name of the Vinegar Bitters Co. The manager, treasurer, secretary and company is now the proprietor of a banking business. Another brother of S. S. also

started a college out west. It was at 9813 Main Street, of course in a large city, and although he was himself educated, a real M. D., he, aided by poor state legislation, started an osteopath, hypnotic, psychological, electro-therapeutic, suggestive college. After a few weeks' study each applicant was granted a degree in several of the subjects named—e. g., D. O., D. Psy. &c., &c. All for the money! The college is on the fourth floor, and the Dr. and two assistants run the show, supported by the state laws.

Whether or not Soup Stone was related to the man who some years ago in Chicago started an "eclectic state medical college" we do not know. A fee from \$25 to \$50 was charged for a degree of M. D. and many of the *alumni* from this and similar institutions are now recommending in medical journals ethical (quack or patented) preparations of which they can know nothing. Ethics are not studied at such "schools."

Soup Stone, his brothers and his cousins—all fakirs—are spending, it is said, \$100,000,000 yearly in making and advertising their goods, and their colleges, in so-called legitimate medical Journals, and newspapers. They spend thousands yearly on free samples, ink pads and so on, and in securing the endorsement of educated and intelligent men who do not take time, however, to reflect that they are being duped or swindled, just as much as the poor housewife.

Moral. Cave Canem: Follow your own *materia medica* or publicly play the quack by using preparations of whose composition you know nothing.

Stirling, Ont.

[Dr. Sprague added the following postscript to this article, which we reproduce: "An article quite similar to this appeared recently in the *Wisconsin Medical Recorder* of Jonesville. As the writer, Dr. Parkyn, was born evidently in the same section as is named in my article, no doubt exists but that he in early years heard the

narrative of the soup stone. This article was written, strange to tell, before I ever saw his article on this subject. Great minds sometimes move in the same channel synchronously. J. S. S."—Ed.]

Roentgen Ray in Sarcoma.—Dr. W. A. Pussey, in *Journal of American Medical Association*, makes strong recommendation for the use of the X-ray in inoperable cases and also as a prophylactic against recurrence in patients who have been operated on. He reports a case in which a clinical and pathological diagnosis was made of a small round-cell sarcoma of the neck. Operation was done, but shortly afterward a similar tumor appeared on the other side of the neck. X-ray exposures were tried for twenty-one days, with a hard tube and a weak light, about 5 cm. from the surface and for from ten to fifteen minutes at a time. Toward the last a pronounced dermatitis developed; the exposures were then stopped. Within ten days of beginning treatment, the tumor had shrunken and motion was freer, and when the exposures were discontinued only a small (almond-sized) gland remained, freely movable and painless. Up to date (Jan. 12, 1902) no change had taken place. In a second case, one of osteosarcoma of the shoulder, far advanced and accompanied by profound cachexia, no improvement was noticed except relief from pain. In a third case of inoperable sarcoma of the pectoral muscles and the shoulder, a like result was observed. Both patients were evidently beyond the reach of any form of treatment. In two cases of Hodgkin's disease which were subjected to a series of X-ray exposures it was found that the further growth of the enlarged glands was inhibited and they themselves became reduced in size.

When the Hair Falls.—*La Médecine Moderne* recommends:

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|-----|---------------------------------|------------------|
| (1) | Formaldehyde (40%) | 7.5 minims |
| | Pilocarpin nitrate..... | 30 grains |
| | Tincture of cantharides } | |
| | Tincture of jaborandi } | of each, 1 ounce |
| | Tincture of nux vomica } | |
| | Compound spirit } | |
| | turpentine } of each, 1½ ounces | |
| | Spirit of lemon } | |
| (2) | Formaldehyde (40%) | 4 minims |
| | Chloral | 22 grains |
| | Methyl alcohol..... | 3 ounces |
- [L. F. A.]

THE EXAMINATION OF THE BLOOD AS AN AID TO DIAGNOSIS.

BY JOSEPH SILL, M. D.

In bringing the subject of blood diagnosis and blood pathology to your attention this evening, a few introductory remarks on the technique of the blood examination seem to be not out of place. The blood examination consists of several procedures:—

1. The examination of the fresh blood.
2. The count of the red blood cells.
3. The count of the white blood cells.
4. The hemoglobin estimation.
5. The examination of stained specimens.
6. The examination for parasites.
7. The determination of the color index.

In order to obtain the blood for microscopical examination, the lobe of the ear, or the tip of the finger is usually selected. The point selected for the puncture is carefully cleansed and with a lance pointed instrument, a puncture deep enough so that a few drops of blood will flow freely without squeezing the part is made. The first drop is wiped away and those following are available for examination.

1. For the examination of the fresh blood, a drop is picked up on the center of a cover-glass, which is then laid onto a slide, so that the blood spreads out in a thin film between the slides and the cover-glass. If the preparation is to be examined immediately this is all that is necessary. If it is to be kept some time before examination it may be sealed with cedar oil or vaseline to prevent contact with the air. The examination of the fresh blood shows us the rapidity of coagulation, and the amount of fibrin formed during that process. It also gives us an idea of the size, shape and general condition of the red blood cells.

2. The count of the red cells is made by means of the Thoma-Zeiss hemocyto-

meter. This consists of a pipette, in which a small amount of blood can be diluted to a known degree, and a counting chamber which will hold a known amount— $1/10$ of a cubic millimeter of the diluted blood. By a very simple computation, knowing the degree of dilution and the amount of blood in the counting chamber, the number of red cells in a cubic millimeter of blood can be determined.

3. The count of leucocytes is made in the same way, using a much lower dilution, and a diluting fluid that renders the red cells invisible.

4. The hemoglobin estimation can be made in several ways. Perhaps the two most methods are by the von Fleischl hemoglobinometer and the Hammerschlag specific gravity method. The von Fleischl instrument consists of a pipette holding a definite quantity of blood, a chamber in which the blood is diluted, and a wedge of red glass, the color of which can be compared with the color of the diluted blood by the reflected light of a candle. The glass wedge is graduated, so the percentage of the normal amount of hemoglobin can be read from a scale. The value of the specific gravity method depends on the fact that except in some dropsical conditions variation in the specific gravity of the blood depends on variation in the amount of hemoglobin present. In making the test one uses a urinometer that is graduated preferably between 1000 and 1070. A drop of blood is suspended in a mixture of benzole and chloroform. Blood is not miscible with either of these fluids, so the drop floats suspended. Chloroform being much heavier than the blood, and benzole much lighter, by varying the proportion of the two fluids, one can obtain a mixture that is of such specific gravity that the drop of blood will neither rise to the surface, nor sink to the bottom, but will float at any point in the test tube. When this result is obtained, the specific gravity of

the mixture of benzole and chloroform is the same as that of the drop of blood, and the specific gravity of the blood can be obtained by taking that of the mixture in which the blood is suspended.

5. The study of the stained specimen gives us perhaps more information than any other one procedure of the blood examination. It shows us the general condition of the red blood cells, shows whether nucleated forms are present or not, and permits a differential count of the leucocytes. This is most important, for by it several conditions in which there is a large excess of white cells, can be differentiated. There are three combinations of stains which are used perhaps more than any others. They are:

1. The hematoxylin-eosin combination.
2. The methylene blue-eosin combination.

3. The Ehrlich tri-acid stain.

Methylene blue and eosin, or hematoxylin and eosin give a good contrast stain, the red cells being stained pink, and the nuclei of the leucocytes violet with hematoxylin or blue with methylene blue. Methylene blue also stains the basophilic granules. Ehrlich's tri-acid stain is a combination of Orange G, Methyl Green and Acid Fuchsin. The red cells are stained with the orange, the nuclei of leucocytes are stained green, neutrophile granules violet, and oxyphile granules red.

6. In regard to the examination of the blood for parasites, it is only necessary to mention that the malaria plasmodium, the filaria sanguinis hominum and some bacteria are sometimes found in the blood.

7. The color index is determined by dividing the hemoglobin percentage by the percentage of the normal number of red cells present. In the normal blood each red cell carries a certain amount of hemoglobin. This amount is represented by the figure 1. That is to say, with 5,000,000 red cells to the cubic mil-

limeter, and 100% of hemoglobin—the normal amount is considered to be 100%—the amount of hemoglobin carried by each red cell is represented by 1. Now, if the red blood cells are reduced to 3,000,000, or 60% of the normal number, and the hemoglobin is reduced to 60% of the normal, then each red cell still carries the amount of hemoglobin that it did in the first instance, or the normal amount, and the color index is still 1. However, if the red blood cells are reduced to 3,000,000, or 60% of the normal number, and the hemoglobin is reduced to 30% each red cell carries only $\frac{1}{2}$ the normal amount of hemoglobin, and the color index is 0.5. Now, if the red cells are reduced to 1,500,000, or 30% of the normal, and the hemoglobin percentage is 60, then each cell carries twice the normal amount, and the color index is represented by 2. The color index represents the proportion of the normal amount of hemoglobin carried by each red cell, and has nothing directly to do with the reduction of red cells, or the reduction in hemoglobin, but is dependent entirely on the relation between the two.

The most obvious opportunity for applying these facts to clinical uses is in the differential diagnosis of the several blood diseases. I should like to consider briefly seven disease conditions, and will try to show the value of the blood examination in distinguishing them. They are:—

1. Secondary Anemia.
2. Chlorosis.
3. Pernicious Anemia.
4. Spleno-medullary Leukemia.
5. Splenic Anemia.
6. Lymphatic Leukemia.
7. Hodgkin's Disease.

These diseases fall naturally into three groups as regards symptomatology, as follows:—

- | | |
|----------|---|
| Group I. | Secondary Anemia.
Chlorosis.
Pernicious Anemia. |
|----------|---|

- Group II. Spleno-medullary Leukemia.
Splenic Anemia.
- Group III. Lymphatic Leukemia.
Hodgkin's Disease.

I have no intention of speaking of the etiology, pathology or treatment of these conditions. I merely want to glance at the smyomatology, showing its similarity, and granting at the outset that there are differences in history and course, particularly in the diseases of the first group, that in typical cases will often serve to distinguish them. On the other hand the differences are only relative and often do not distinguish, and our most reliable knowledge is derived from the blood examination.

Considering the diseases of the first group, we find that all three are characterized by pallor, muscular weakness, by dizziness and faintness on exertion, and by gastro-intestinal disturbances. We find in all three conditions hemic murmurs, perhaps precordial pain, dilatation of the heart, fatty degenerations in the various organs, in fact all the evidences of defective oxygenation. We find that in the two primary anemias the panniculus is well preserved, and although the muscles are flabby, still the patients do not show marked evidence of emaciation. Of course in secondary anemia, the condition of general nutrition is dependent on the cause producing the anemia.

Let us now consider the second group of diseases, splenic myelogenous leukemia and splenic anemia. Both of these conditions are characterized by great enlargement of the spleen, pallor, gastric haemorrhage, weakness, faintness, and all the symptoms that go with a moderate degree of anemia, and an enlarged spleen. I think without the blood count these two conditions are not to be distinguished.

Turning to the third group, lymphatic leukemia and Hodgkin's disease, we are confronted by the same condition of af-

fairs. Both diseases are characterized by practically the same train of symptoms. Both show a general enlargement of the lymphatic glands which do not tend to caseation or suppuration. Both are characterized by the symptoms of a moderate anemia.

Cabot says, speaking of Hodgkin's disease, "The diagnosis of the disease is impossible without the blood count. Its pathology is identical with that of leukemia, and even in post mortem the two diseases are indistinguishable so far as the lesions outside of the blood are concerned. Yet the blood is in no way peculiar but presents in most cases all the characteristics of the normal tissue. Its value is as negative evidence, telling us in a given case that leukemia is absent even though all the other signs and symptoms may be those of leukemia."

In Byrom Bramwell's book on Anemia, in speaking of the differential diagnosis of Hodgkin's diseases from leukemia, he says, "There is no difficulty in distinguishing typical and uncomplicated cases of leucocythemia (whether of the spleno-medullary, or lymphatic variety) on the one hand, from typical and uncomplicated cases of Hodgkin's disease on the other. The distinction is at once made by a microscopical examination of the blood; for in typical and uncomplicated cases of Hodgkin's disease, the white blood corpuscles are only slightly, or not at all increased in number.

"Further, even in those cases of Hodgkin's disease in which the white corpuscles are increased, there is usually no real difficulty in diagnosis. The distinguishing point is the different character of the white corpuscles which are present."

Indeed, Bramwell goes so far as to discuss the two forms of anemia under one heading, and the impression left after reading his chapters on "Leucocythemia" and "Hodgkin's disease" is that the distinction between the four diseases,

spleno-medullary leukemia, lymphatic leukemia, splenic anemia and Hodgkin's disease is very hazy without the knowledge gained by microscopical examination of the blood.

Let us now see what the blood has to show in these several conditions.

The blood in secondary anemia shows a reduction of the hemoglobin, sometimes to 10—15% of the normal. There is a reduction in the number of the red blood cells, which may be marked to 1,000,000, but which as a rule runs nearly parallel to the reduction of hemoglobin, leaving the color index usually but little decreased.

The red cells are as a rule not much deformed, although in severe cases there may be some poikilocytosis. Nucleated red cells are not found except in severe cases, and when present are usually of the normoblast type. Nucleated cells of large size—megaloblasts—may be found in small numbers, and those of small size—microblasts—may also be present.

Cabot speaks of secondary anemia as of four grades of severity. The blood changes are summarized as follows:—

The changes characteristic of mild cases:—

- a. Lack of hemoglobin.
- b. Lowered specific gravity.

The changes characteristic of moderate cases:—

- a. The above, and
- b. Necrobiotic changes of Maragliano, which include

1. Endoglobular changes.
2. Poikilocytosis and crenation.
3. Changes in staining properties.
4. Changes involving motility in the corpuscle as a whole or in parts of it.
5. Decrease in average diameter of corpuscles, with loss of power to form rouleaux.

The changes characteristic of severe cases:—

- a. Lack of red cells.

b. Presence of normoblasts, and the above.

The changes characteristic of very severe cases:—

- a. Megaloblasts and the above.

In chlorosis we have quite a different picture. The red blood cells are but slightly reduced in number as compared with the reduction in hemoglobin, giving the low color index characteristic of the disease. Changes in the red cells are not marked except in very severe cases, and nucleated red cells are rarely found even in cases of great severity. Cabot summarizes the differences between the blood in the secondary anemias and chlorosis, as follows:—

a. The red cell are more apt to be uniformly undersized and undercolored in chlorosis, while in secondary anemia we more often find normal cells among the diseased ones.

b. The color index may be lower in chlorosis than is common in secondary anemia, and this lowering is more constant in chlorosis.

c. Lymphocytosis, which is very common in chlorosis, is not so common in secondary anemia.

d. Nucleated corpuscles are less common in chlorosis than in anemia secondary to malignant disease.

e. Coagulation is rapid in contrast to the very slow clotting of pernicious anemia and of many secondary anemias. Yet fibrin is not increased.

Pernicious anemia again shows quite a different condition. The red cells are much reduced in number—more so than in any other disease—often to 1,000,000 and sometimes lower. The hemoglobin as a rule is not so much diminished as the reduction in red cells would lead us to expect. The color index is consequently above normal, sometimes markedly so. The red cells vary much in size and shape. Megalocytes and microcytes are common. Endoglobular degenerations

and changes in the staining properties of the red cells are often met with. Nucleated red cells are common, and are of all types, the megaloblasts often predominating over the other forms. The white cells are reduced in number, and a small number of myelocytes may be present.

Cabot summarizes the changes as follows:—

1. Red cells about 1,000,000 per cubic millimeter.

2. White cells much diminished.

3. Hemoglobin variable, sometimes increased relatively.

4. Deformities in size and shape of red cells in many cases.

5. Increase in average diameter of red cells.

6. Polychromatophilic red cells.

7. Megaloblasts more numerous than normoblasts.

8. Lymphocytosis.

9. Small percentage of myelocytes.

Cabot considers the most important of these changes to be the following:—

1. The reduction of red cells to about 1,000,000 per mm.

2. Great diminution of white cells.

3. Increase in the average diameter of red cells.

4. Preponderance of megaloblasts over normoblasts.

Byrom Bramwell considers that there is deformity in size and shape of the red cells in all well marked cases. He thinks that the average size of the red cells would not be increased if the small cells were included in the calculation. He has not always observed the preponderance of megaloblasts over normoblasts. He adds the following to the changes characteristic of the disease:—

10. Marked defect in rouleaux formation.

11. Marked tendency for hemoglobin to be concentrated in localized parts of the red corpuscles, giving an appearance of apparent nucleation.

12. Presence in many cases of truly

nucleated red corpuscles.

13. Diminished stability of the hemoglobin.

14. Great frequency in well marked cases of microcytes often of very minute size, from mere points up to the average sized red corpuscle.

15. The occasional presence of deeply stained microcytes (Eichherst's corpuscles.)

16. Blood plates usually diminished in number, and in some cases markedly so; and the fibrin network less quickly formed, and less dense than normal.

Splenic anemia and Spleno-medullary leukemia are, I believe, not to be distinguished without the blood examination—and at this point the similarity between the two conditions ceases. The blood in splenic anemia shows merely the characteristics of a secondary anemia of more or less severity, while leukemic blood is characteristic. In no other disease are the white blood cells so enormously increased—on an average to about 450,000 per cubic millimeter. Of this enormous number of white cells about 37% are myelocytes, cells which are not to be found in normal blood. Nucleated red cells are very numerous, even when evidences of anemia are absent. Both normoblasts and megaloblasts are found but the former usually largely predominate over the latter. This makes a blood picture that is not simulated by any other condition.

Lymphatic leukemia and Hodgkin's disease are also, I believe, indistinguishable without the blood count. Here again the evidence gathered from the blood of Hodgkin's disease is negative. The blood is either normal, or shows the changes characteristic of a secondary anemia. The blood of lymphatic leukemia is characteristic of the disease. Again the white cells are enormously increased, although not to the extent common in the spleno-medullary form of leukemia. The curious and characteristic thing about

this increase is that usually over 90% of the leucocytes are of the lymphocyte type. The red cells are more markedly reduced than in spleno-medullary leukemia, and nucleated forms are by no means common.

It is to be noted that the increase of white cells in the two forms of leukemia is easily distinguished from an ordinary leucocytosis, which may also markedly increase the number of white cells, by the character of the cells, which in a leucocytosis are largely of the polymorphonuclear variety, and in the leukemia are made up on the one hand largely of myelocytes—which are absent from normal blood, and on the other hand of the mononuclear variety.

It is a temptation to speak of the value of the blood examination as an aid in the differential diagnosis of other diseases, but time will permit only the merest mention of one other condition—leucocytosis.

Leucocytosis is peculiar to no one condition, and is present in many. It is found in many infections, especially in suppurative conditions, after haemorrhage, after poisoning with several substances, often in malignant disease, especially in those cases in which the tumor is rapidly growing, and when metastasis is taking place.

Its presence is dependent on two factors:—

1. The severity of the exciting cause.
2. The resistance of the individual.

If the exciting cause—infection, for instance—is very mild, there will be no leucocytosis. If the infection is severe, and the resistance of the individual is poor, there will be no leucocytosis. If the infection is severe, and the resistance of the individual is good, leucocytosis will be present. If the infection is so severe as to overwhelm all resistance, again there will be no leucocytosis. This is of some prognostic value, for the absence of leucocytosis is a bad sign except

in obviously mild cases, while its presence is neither good or bad, merely meaning that the patient is putting up a good fight for life.

I will close with the mention of a few instances in which the presence or absence of leucocytosis is of some diagnostic value.

In general suppurative conditions may be distinguished from those in which there is no pus formation by the presence of leucocytosis in the former and its absence in the latter, as for instance, pus tube from ovarian neuralgia, and appendicitis from colic with constipation.

Typhoid fever may be differentiated from obscure cases of pneumonia or appendicitis by its absence in the former, and its presence in the two latter diseases.

It may be of service in distinguishing scarlet fever, which shows it, from measles, which does not.

One can often get some idea of the rapidity of the growth of a malignant tumor, and of the presence or absence of metastases by the amount of leucocytosis present.

Obscure cases of malignant disease can often be distinguished from pernicious anemia by its presence in the former, for in those cases in which the blood in malignant disease resembles that of pernicious anemia, leucocytosis will be present in the malignant disease, while pernicious anemia shows just the opposite condition—leucopenia.

Detroit, Mich.

Knee-jerk in Chorea.—Dr. Gordon, in the *British Medical Journal*, has described a modification of this spasmodic movement, common in chorea. It is his experience that when the disease is present, and the knee-jerk is tested in the usual way, the foot sometimes rises smartly, but falls slowly back to the initial position, after remaining suspended for some time. When this condition is found, Dr. Gordon regards it as peculiar to the disease.

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

WALTER C. BOYNTON, Manager.

—ISSUED BY—

THE DETROIT MEDICAL JOURNAL CO.,

Note.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, to 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., MARCH, 1902.

With this issue, the DETROIT MEDICAL JOURNAL completes its first year of existence. It therefore takes what seems to be a fitting opportunity to extend its thanks to the members of the profession who have been the means of enabling it to attain this respectable and, we hope, respected age. The lines upon which the JOURNAL was laid down have been carefully followed in the upbuilding and we can say conscientiously to the profession that the pledges made in the salutatory of the April, 1901, issue have been carried out.

The reading matter has in the major part been made up of original and modern contributions, placing before the profession the views of men carefully trained in the subjects on which they write; we have received support from the very men upon whom we depended to make the JOURNAL a success. The list of regular subscribers, always an important consideration to the management of any publication, has grown steadily and we can now feel that we have at least a foot-hold in the esteem of the profession. It shall be our endeavor in the future, as it has been in the past, to merit and obtain a stronger hold upon the men who want original, concise, practical articles on subjects of interest. We have catered to no school and to no cult. Our policy is to do our utmost to secure for the practice of medicine the recognition it deserves, at the same time taking a strong

stand against the irregular practice of medicine as carried on by the adherents of strange ways and followers after strange gods. It shall continue to be our policy.

The advertising side of the publication has been made to adhere strictly to the principles as first announced by the JOURNAL. We have carefully excluded advertising of a nature that could give offense to a physician or surgeon; we have endeavored to provide in the advertising columns, as in the columns of reading matter, information that was not only interesting but authentic and reliable.

If the lines upon which the JOURNAL has completed its sometimes difficult first year meet with your approval of the profession, we shall have done what we purposed doing. And now we desire to urge upon you, doctor, the *necessity of your subscription*, if you are not already a subscriber. We want to have every member of the profession take a live interest in us. And we believe rightly that the man who takes the greatest interest in a publication is the man who subscribes to it—and pays his subscription.

Again we extend our sincere thanks to the men who have helped us make both departments, reading matter and advertisements, helpful. We shall try to keep them in a constant state of value to those who support us.

WAR ON QUACKS.

What promises to be the first council of a war of extermination against the men who are practicing medicine in Detroit without having complied with the provisions of the Chandler act has already been held in Detroit. Physicians of the city have held a meeting, appointed committees and enlisted the assistance of the police justices and the prosecuting attorney of the county, to aid them in forcing the illegal practitioners to either comply

with the law or discontinue the practice of medicine.

The meeting was held at the Hotel Normandie on the evening of March 3, and representatives of the Wayne County Medical Society, the Detroit Medical Society and the Homeopathic Society were in attendance to discuss ways and means. Dr. Frank D. Summers, Dr. George A. Kirker and Dr. G. W. Moran represented the Wayne County Society, Dr. E. L. Shurly, Dr. Hiram A. Wright and Dr. Louis Hirschman were from the Detroit Medical Society, and the Homeopathic Society was represented by Dr. Harold Wilson, Dr. E. J. Kendall and Dr. B. H. Lawson. Dr. Beverley D. Harison, of Sault Ste. Marie, secretary of the state board of registration in medicine, has promised his co-operation in every way to the joint committee, and with both the law and popular feeling on their side the legal practitioners should be able to make it disagreeable and ultimately impossible for unqualified men to practice in the state. The provisions of the law are entirely just and no hardship is worked to any capable man. Everyone who has a moral right to practice is given a legal right by the law.

The physicians have taken the only sensible and efficacious way to stamp out illegal practice. No one is better qualified than a physician in practice to obtain evidence against men who are breaking the law by practicing without right; and the fact that the medical organizations have taken up the matter jointly speaks volumes for the strong feeling existing in the profession. If the law is good, it should be enforced; if it is bad and calculated to work injury to innocent persons, it should be enforced all the more, that its weak points, if any, may be determined. And the only way to have the law enforced is to bring up cases against those who are thought to be breaking it. This it should be the duty of every reputable practitioner to do.

COMPETITION.

In these days of competition in business affairs, every branch of industry is affected. Even the materials used by the physician and the surgeon feel the influence and suffer from it to some extent. It is now no uncommon thing to receive from some large drug house a catalogue of drugs in which the prices of the raw material quoted are actually higher than are the prices quoted for some combination of drugs in tablet or pill form. The question naturally arises as to the possibility of a manufacturer putting upon the market a tablet containing a dollar's worth of medicine and sell it for eighty cents. It makes people skeptical of the good faith of the manufacturer. Leaving out all question of the value of the labor expended on the product—scarcely a negligible quantity—and the cost of packing, advertising and shipping—another large factor in the price of tablet goods—it seems strange indeed that a business house will follow out a suicidal business policy in selling goods for less than actual cost.

The fact that large drug houses continue to do business at apparently a profit goes far to prove that something is wrong somewhere. The possibility of the quotation on the raw material being too high is a remote one, for competition in obtaining drugs is as keen as that which prevails in the sale of goods manufactured from the drugs. The most reasonable solution of the problem appears to be that drugs of inferior quality are often used. And this would be to the disadvantage of the practitioner and his patients as well.

The surgeon, too, feels the result of a strong competition. With the introduction of bichloride as an antiseptic and need of first-rate instruments is becoming more and more imperative. It is not uncommon for a surgeon to return a knife or other instrument to the manufacturer on the ground that it has not retained its edge or that it has given way under strain

imposed upon it in an operation. The defense of the manufacturer will usually be that the instrument has been so thoroughly sterilized by the bichloride that it is impossible to tell whether the injury resulted from the poor quality of the metal or from the action of the antiseptic.

The imported knives are made better because labor is cheaper abroad and because manufacturers can obtain a higher price for the finished article. The raw material in America is as good as it is anywhere, but competitive conditions are such that something has to be sacrificed to enable the manufacturer to sell his instrument at a fair profit. So long as competition continues to play as important a part in the manufacture of physicians' and surgeons' supplies as it now does, so long will the profession suffer from inferior articles.

LIBRARY COMMITTEE REPORT.

The Library committee of the Detroit Medical Society, composed of Dr. Delos L. Parker and Dr. Homer E. Safford, has been printed and shows that much interest has already been aroused in the library among the members of the profession. Since the first day of 1901 there have been 59 volumes of medical works added to the library, comprising volumes that have been acquired either by gift or purchase. Detroit physicians have donated 66 medical journals, comprising works in English, French, German and Italian, and medical and chemical periodicals to the number of 24 have been furnished by the library itself. Publishers have donated monthly periodicals to the number of 23, among them being the DETROIT MEDICAL JOURNAL, and the committee expresses the hope that continued interest may be shown in the matter of book donation by those who are able and willing to provide volumes for the library. A telephone is maintained by the society at the medical reading room and the committee calls especial attention to this feature as it en-

ables a practitioner to keep "in touch with his work as truly as at his home."

EDITORIAL NOTES

Dr. Küssing, of the Ebbendorf hospital, Hamburg, Germany, has been at work for some time past on the preparation of a work on Roentgen ray photography, which it is thought by those familiar with the subject will be an unusually interesting and valuable one. Dr. Küssing has, since the application of the rays to medical photography, taken a lively interest in work of this nature and his position at the hospital has enabled him to do much along this line. His book is to be published shortly and will contain some shadowgraphs of the circulatory system which will be very interesting to students of electro-photography. We hope to be able to present a reproduction of one of these plates to our readers in the near future.

DR. WILLIAM R. HANES.

On Monday, March 3, Dr. William R. Hanes, one of the house physicians at Harper, died of blood poisoning, contracted at an autopsy performed a week before. A small abraded spot on one of his fingers permitted a fatal infection and he failed in spite of the best care his fellow practitioners could give him. The dead man was only 25 years of age and graduated from the Detroit College of Medicine with the class of 1901. His special skill in surgery, already manifest, made him a valuable house surgeon and he had gained the respect and affection of those with whom he came in contact in the discharge of his duties.

Dr. Hanes was the first physician at Harper to die in the discharge of his hospital duties and subscriptions are being taken up to erect a tablet to his memory.

His home was in Windsor, where his father, Charles S. Hanes, is engaged in the lumber business. Besides his father, a mother, two brothers and a sister survive Dr. Hanes.

Efforts are being made to raise a fund for the establishment of a hospital bed at the Detroit free dispensary for women and children and the public has been asked to contribute. A meeting of the members of the dispensary was held on March 4 and the following officers were elected: President, Dr. Florence Huson; Secretary and treasurer, Dr. Alice Star-ring; Directors, Dr. Harriet L. Hawkins, Dr. Lucy J. Utter, Dr. Margaret A. Flem-ing and Dr. Adeline E. Gurd.

Drugs and Medical Practice.—Dr. John Madden, writing in *American Medicine*, says:

"It is perfectly safe to state, as a general proposition, that the more exact our knowledge as to the cause of a disease, the fewer the remedies we will employ in treating it. The nearer we can strike an effective blow at the source of the disease the less will be our need for giving drugs, and if it be made possible for us to destroy these minute enemies of man before they can effect the invasion of the human body, we shall have no need of medicines at all to treat this class of diseases. Let us but consider the effects in this direction which have been wrought by the discovery that the mosquito is also the disseminator of yellow fever. Petroleum to destroy the germ carrier, and mechanic appliances, such as wire and cloth mosquito-netting screens to protect the body from bites, will take the place of the unlimited pounds and gallons of drugs which were formerly used in every epidemic of this dreaded scourge. Just glance over the pages of any comprehensive Practice of Medicine published 15 or 16 years ago, and note the drugs used in, or recommended for, yellow fever—emetics, purgatives, sudorifics, ipecac, castor-oil, calomel, the salines, jaborandi, mustard, quinine, as much as 20 grains at a single dose, with a half drachm of tincture of opium; mucilages, linseed, slippery

elm, gum arabic, opium, potassium bromide, chloral, external applications of ammonia, camphor and common salt, embrocations of turpentine, gelsemium, digitalis, aconite, veratrum viride, ergot, turpentine (internally), gallic acid, tincture of chloride of iron, sodium bicarbonate, morphine, creasote, seltzer, apollinaris, champagne, chloroform and cantharides. This is a formidable list, but who shall say that any one of them has not fulfilled some purpose and been of some use when intelligently given? At any rate, the profession will look with small favor upon the therapeutic nihilist who is disposed to sneer at the physician who relies upon drugs in the absence of other things.

"Whatever future discoveries and inventions may bring forth, the total abolition of drug giving is very remote—as remote as the time when man shall cease to infringe the laws of health and chastity, and to beget degenerate offspring. Iron and other tonics, drugs for the abolition or assuagement of pain, drugs for relief of nervous irritation and for promotion of sleep, artificial digestive ferments, eliminatives for him who has gorged himself with more food than his organism needs, will be used until the advent of the millenium.

The mere giving of drugs is a very unimportant part of the physician's duties. When he gives fewer drugs he will understand thoroughly the action of those which he does give, selecting each with that precise judgment which can be obtained only from a most thorough knowledge of diseased conditions, and which requires a thorough and exact scientific training. Perhaps the average layman will some day learn the importance of giving his physician the task not of merely making him well, but of keeping him from becoming ill; not of administering drugs to him, but of so judiciously advising him that his need for drug-swallowing shall be decreased tenfold."

Vaginitis.—

R. Resorcin, gr.....	lxxx
Acidi salicylici, gr.....	viii
Betanaphtholi, gr.....	j
Aquaæ, q.s. ad.....	3viii

M. Sig.: Add one tablespoonful to a quart of warm water and use as a douche.

—(*Journal of the American Medical Association.*)

NEW INSTRUMENTS & DEVICES

SALINE APPARATUS.

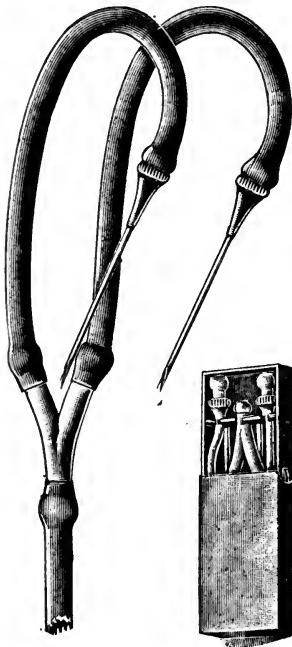
The accompanying cut illustrates a form of a device for the administering of the saline solution which is unusually handy and compact, while its price brings it within the reach of many who do not care to make an elaborate investment for an article of this nature.

With the device in his emergency bag the physician is ready for saline work or for transfusion. Every house contains a fountain syringe nowadays and this, after being rendered sterile, is used as

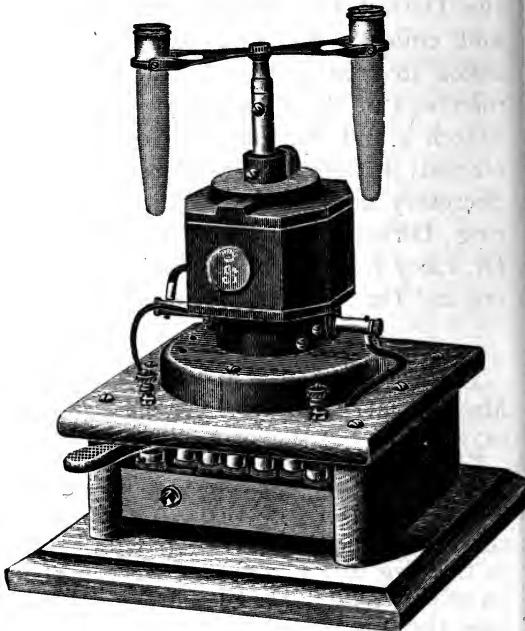
the container for the solution, the Y-piece attached to the needle-tubes easily slipping over the tube of the syringe. The article illustrated takes up practically no room, is thoroughly well made, easily rendered sterile and is a necessity to the physician who includes the administration of saline solutions in his practice. It retails for \$1.25 complete.

ELECTRIC CENTRIFUGE.

The specialist in analysis can not do without a centrifuge of some kind and for a man who has much of this kind of work to do the device illustrated herewith, with electricity as its motive power, is a great convenience and practically a necessity. Hydraulic centrifuges have undoubtedly advantages over the old method of turning a crank with one hand with as nearly a uniform speed as possible. The advantages of centrifugal analysis are too many and too well known to bring before the attention of the profession at this time, and the question for the practitioner to determine is, how may he secure the most complete precipitation in the



shortest time. The old hand method had many undoubted disadvantages; the hydraulic is of use in cases in which electric power is not easily and immediately available; but the electric centrifuge furnishes the easiest and best method for making analysis of urine, blood and sputum. Milk and water are easily analyzed by the same centrifugal method, the examiner being sure of a complete precipitation without labor on his part.



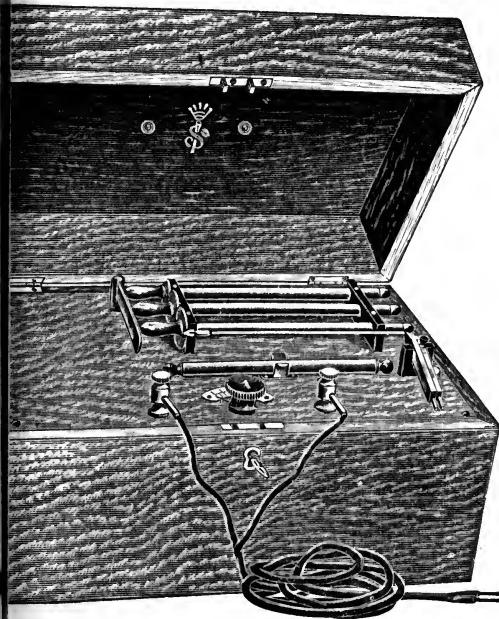
The tubes in the device here shown are mounted on a handsome stand with nickel-plated fittings and binding-posts. It is a convenience and a necessity and it retails to the profession for \$30.00.

CHETWOOD URETHRESCOPE.

For direct illumination of the urethra, this instrument embodies all the features essential to a direct examination and the simultaneous use of instruments. In the end of a metal stem is fitted a small incandescent lamp which gives out a bright light without at the same time producing a great amount of heat. A feature of the battery which supplies light for the lamp is the fact that it will glow the lamp for at least 150 to 200 operations and when it is exhausted a new battery or set of batteries can be put in place at very small expense. The lamp carrier is so constructed that burned-out lamps are readily replaced.

The lamp itself is held by the carrier in such a way by means of a small attachment handle that the lamp and the carrier itself are held closely against the inner wall of the endoscopic

tube, interfering as little as may be with the clear view of the operator or examiner. In the handle is a small switch, controlling the battery. The whole apparatus is handsomely finished, with a polished oak case, containing four dry cell batteries and a rheostat, so that the



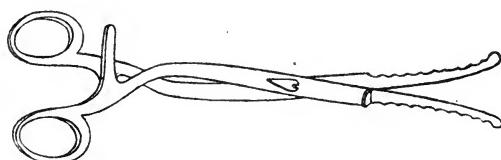
amount of current can readily be regulated by the operator. An extra lamp and connecting cords are also furnished. The whole outfit costs \$25.00, with \$1.25 for extra lamps and the same price for a set of four extra batteries.

VENTRO FIXATION FORCEPS.

For this not uncommon operation, the instrument illustrated in the accompanying cut will be found of great value to the operator. There are many objections to the use of the sounds, necessitating an assistant for the operation; and to the use of the upper and lower elevators, necessitating an uncomfortably large incision. With this forceps the operation becomes almost simple. The instrument is made of copper and is bent in such a position that when held by the hand of the operator the uterus is held in its proper and normal position.

By compressing the handles, the instrument is fixed in the uterus and cannot fall out, while the shoulders on the blades prevent too deep an insertion. The uterus is raised to the abdominal wall in its normal position and the exact point at which the incision is to be made can be easily determined by feeling with one hand on the abdomen to see where the end of the forceps comes. It is then a simple matter

to make the required incision and take the stitches needed, the uterus in the meantime being held with ease by the forceps while its surface is granulated. The inventor of the instrument which is absolutely new, has used it



with marked success in a number of operations recently and says without prejudice that it is the best device for securing ventro fixation that he has yet seen. The instrument is manufactured in Detroit and it retails to the profession for \$8.00.

Heroin.—

This is a derivative of morphine (Di-acetyl-morphine hydrochloride) had in white crystalline powder, incompatible with alkalies, soluble in water, and possessed of the properties, greatly exalted, of codime. Since its introduction in 1899 it has steadily grown in favor, and latterly has assumed rank as the most valued remedy in the alleviation of the distressing symptoms that obtain to pulmonary maladies. Its beneficent effects are well marked in acute and chronic bronchitis, bronchial asthma, pulmonary emphysema, whooping cough and the imatical respiratory symptoms that often accompany *la grippe*. It is a veritable boon to phthisical and tubercular patients—and here is manifested its greatest field of usefulness—in whom it readily allays cough and dyspnoea, stimulating respiration, quieting the nerves and promoting sleep. It soothes without narcotism, and acts as an analgesic without becoming markedly depressant. Dose from 1-25 to 1-5 grain, or hypodermatically from 1-75 to 1-25 grain.

Cerebro-Spinal Meningitis.—Of sixty cases investigated, fifty-seven were found to have their origin in long exposure to dust. Dust is the natural vehicle for the *Diplococcus intracellularis meningitidis*.—(*British Medical Journal.*)

THERAPEUTIC BREVITIES

Luxation of the Testicle.—M. Parizeau records a curious case of luxation of the testicle. The patient, a man 64 years of age, was working at an excavation when he was buried in a mass of débris. On being released, he was almost asphyxiated, and the subject of many contusions. On recovering from a semicomatose condition, he complained of intolerable pains on the left side of the thorax, which were only partly relieved by the discovery and treatment of three fractured ribs. He suffered much from shock, being pale, with a rapid and feeble pulse, frequent and painful respiration, and repeated and prolonged vomiting far into the night. Active stimulation had ameliorated his condition by morning, when he was first seen by Dr. Parizeau. About a fortnight later, the patient drew the doctor's attention to a soft, regularly oval, almost painless swelling on the inferior surface of the penis, the skin about which was ecchymosed and to which, taking it for a hæmatoma, he at once applied a moist compressing dressing. The scrotum appeared to be normal. After the swelling had subsided, examination convinced the author that this swelling was a dislocated testicle, of the absence of which from its proper place he soon satisfied himself. At the earnest solicitation of the patient he incised the scrotum obliquely toward the root of the penis, and releasing the imprisoned testicle from the cicatricial mass by which it was retained, replaced the errant gland, and fixed it *in situ*. A perfect recovery was made without any accident, and after the expiration of many months there had been no atrophy.

There had been, the author said, up to that date two cases of luxation of the testicle recorded; in the first, by Hess, the testicle had lodged in the opposite side of the scrotum, having passed through the septum; in the other, by Bruns, it had been found underneath the skin of the pubes.—(*New York Medical Journal*.)

Cystitis.—The following is an admirable combination in acute and chronic inflammation of the bladder:

Benzoic acid.....	4 drachms
Sodium borate.....	4 drachms
Corn-silk extract Fl'd....	8 drachms
Water to make.....	4 ounces

A dessert spoonful in water every three hours.

The treatment of chronic cystitis does not necessarily differ from that of the acute form in so far as the internal administration of drugs is concerned. The main object is, of course, to maintain normal urine in a healthy bladder. The urinary tract should be disinfected, and salol with calomel will help accomplish this.—(*Transactions Medical Society of West Virginia*, 1901.)

Effect of Cocaine.—Dr. E. H. Martin, in the *Medical Times*, speaks interestingly of the effects produced by this drug. He says that the cases of cocaine and morphine habit are generally among white people, while the combined use of cocaine and whisky appears more frequently among the blacks. The latter two drugs seem to smother all moral sensibilities. Insomnia and anorexia are prominent symptoms and lead to more whisky. The action on the genitals is peculiar. Whether the drug is excreted in the urine, causing anaesthesia of the urethra and glans, or whether the sexual centers in the brain are affected is not known, but cocaine always causes the penis to become shrunken and bloodless. Where morphine also is taken the desire is destroyed, but cocaine and whisky markedly stimulate the sexual appetite, erection being, however, impossible, and sexual perversion frequently results. In regard to treatment, the cocaine habit is similar to the whisky habit and can be stopped if the patient has any will power left. A few days' bracing with strychnine is all that is usually necessary, but it sometimes happens that there is great difficulty in giving the victim enough will power. The great increase in the use of coca and coca-cola will undoubtedly lead to there being as many users of these drinks as there are now of coffee, and the effect which the continued use of small doses of cocaine has will probably be more fully understood.

Quinine Susceptibility.—Stelwagon, in the January *Journal of Cutaneous and Genito-Urinary Diseases*, reports an extraordinary case as follows:

"Cases of eruptive phenomena from the ingestion of quinine preparations are common enough in literature and fairly well known, and therefore the publication of new instances is probably only justified by some unusual feature, or for the purpose of calling attention to the possible confusion of some of these rashes with the exanthemata. The case described by the writer is especially striking on account of the smallness of the dose necessary, the many ways in which the drug surreptitiously, so to speak, gained access, and the uncomfortable results which followed. The patient, a gentleman of middle age, healthy, has had something like twenty-five attacks of scarlatiniform erythema, followed by branly and lamellar and sheet-like desquamation, with more or less accompanying itching, and running a course of several weeks.

"The history of these attacks is interesting, as it was noted that on every occasion that the patient had imbibed quinine in any form he had an attack of the eruption. He took small doses of quinine once for malaise. Straightway an attack of the eruption occurred. When the eruption was over he took a tonic containing quinine to build him up, whereupon another attack of the eruption recurred. And so on, every time he took quinine, calisaya or any of its derivatives he suffered with this skin eruption. The use of a tooth-wash containing an infinitesimal amount of quinine superinduced an attack, as did the use of a quinine lotion on the hair.

"The patient's life has been made miserable on account of his great susceptibility to quinine. He stands in mortal dread every time he consults a strange physician, fearing that he will not properly consider the question of susceptibility to quinine. Even when he has no fears on account of good health he is in danger of using a tooth-powder or wash containing quinine.

"Strange to say, the patient stated that but a few minutes elapse after he has taken the drug before he feels a flush go over the entire surface of the body, and he always knows at once that the mis-

chief has been done. His nails have always been unaffected."

Nose, Mouth and Pharynx Antisepsis in Scarlet Fever.—To secure this, the *New Orleans Medical and Surgical Journal* suggests the following:

R. Menthol	grs. iii
Boric acid.....	.3 <i>i</i>
Vaseline3 <i>i</i>
M. Sig.—To be applied in the nose.	
Or,	
R. Oil of peppermint.....	mx
Resorcin	grs. xv
Olive oil (sterilized).....	.3 <i>v</i>
M.—Eight drops to be instilled into each nostril morning and evening.	

The mouth should be washed frequently with borated, carbolized, or naphtholized solution and the same applied to the tonsils and pharynx.

Hypodermatic Needles, to Cleanse.—

The needle should be kept carefully clean; but, if neglected so that the wire can not be passed, the point may be heated in an alcohol flame to burn out the organic matter. When the wire is rusted in the canula, the latter should be allowed to soak over night in neutral oil, and then heated as before. After that, all traces of rust are removed by forcing into the point more oil.—(BOURNEVILLE and BRICON).

Medical Mission in Labrador.—Along more than a thousand miles of seacoast in Newfoundland and Labrador there are no doctors except those of the Labrador Medical Mission. Yet medical service is greatly needed. The resident and summer population of these coasts reaches from twenty to forty thousand. Life is a hard struggle for them and disease is frequent. They are largely subject to accidents, poisoned wounds, eye-disease, digestive troubles, scurvy, consumption, and various epidemic diseases. Their only possible relief from these conditions and from the terrible suffering, crippling, death and destitution resulting from them comes from the work of the Mission. This Mission deals with over 2,000 cases every year. It maintains a finely-equipped hospital steamer and two hospitals on the Labrador shore and is building a third hospital in Northern Newfoundland.—(*Exchange*.)

NOTES & COMMENT

Minnesota Has Her Troubles.—The board of medical examiners of Minnesota revoked a license on account of dishonorable and dishonest conduct. The practitioner was the sole attendant of a medical institute which advertised largely in the most offensive manner and expressly guaranteed cures. An appeal to the governor was taken. His and the attorney-general's opinions clearly admit the unprofessional conduct and dishonesty of the advertisements, but nevertheless the action of the state board is reversed on a mere legal technicality. The complaint stated that the doctor had caused certain signs to be painted and affixed to the house, whereas it was shown that such signs were in place, when he assumed charge of the institute. And this saved him. Comment is unnecessary.—(*Wisconsin Medical Record.*)

No, there isn't much to be said, in the premises. The governor and the attorney-general seem to have been more at fault than the physician. It is a pity they have no licenses to revoke.—Ed.

Laceration of the Perineum Repaired.—Dr. H. A. Royster, before a recent meeting of the Southern Surgical and Gynecological Association is reported in *American Medicine*, as having given the following interesting history of a case: "The perineum of this girl was torn completely through the rectovaginal septum at her birth. The child's grandfather acted as accoucheur. Owing probably to dimmed eyesight and infirmity, a breech presentation was evidently mistaken for vertex position, and the obstetrician, introducing his finger into what he thought was the child's mouth, but which was really its vagina, exerted traction, and the result was a complete laceration of the baby's perineum. No immediate harm came from the accident, and it was resolved not to attempt a restoration of the injured region until the girl was considerably older. After two operations the author obtained a perfect result."

Chicago Morals.—An operation being performed upon a woman in the general clinic at the Cook County Hospital, January 23, was stopped by Warden Healy, and the patient removed to a private operating-room, away from the view of medical students. The Warden recently gave an order that women should not be publicly exposed while undergoing perineal and uterine operations, and he intends to enforce it.—(*Medical News.*)

(It is to be regretted that Warden Healy is not more active in the suppression of crime in general. Chicago might well devote her wardens' attention to crimes against women, far more heinous than the performance of operations before an audience of medical students, whose only interest was presumably a wholly decent and professional one.—Ed.)

Very Low Rates to the Northwest.—March 1 to April 30, 1902, the Chicago, Milwaukee & St. Paul Railway will sell tickets to Montana, Idaho and North Pacific coast points at the following greatly reduced rates: From Chicago to Butte, Helena and Anaconda, \$30.00; Spokane, \$30.50; Portland, Tacoma, Seattle, Victoria and Vancouver, \$33.00. Choice of routes via Omaha or St. Paul to points in Montana, Oregon and Washington.

For further information apply to any coupon ticket agent in the United States or Canada, or address Robt. C. Jones, Michigan Passenger Agent, Detroit, Mich.

Are You Like Him?—Dr. H. U. Umsted died January 25th at Phoenixville, where he had practised medicine for fifty-five years. At the time of his death he had \$50,000 in uncollected bills on his books.—(*Medical News.*)

Pilocarpine.—This is a valuable medicament in acute or chronic kidney affections in adults or children. Use one-third to one-half grain every two or three hours; also employ pure cream of tartar freely in these affections. Pilocarpine is also highly valuable in croup, diphtheria, broncho-pneumonia, and acute capillary bronchitis.—(*Georgia Eclectic.*)

The Army Death Rate.—Statistics derived from armies are of particular value, for there is no chance for the concealment of cases which frequently occur in civil life. Every case of disease as well as every death is known. Beginning with 1874 the average annual death rate per 100,000 strength in various armies was as follows: French army for eight years, 15; Austrian army for six years, 26; British army for twenty-two years, 3.7; Prussian army, one solitary death from 1874 to 1896. I have not been able to obtain the statistics since that year. As already stated, vaccination is more thoroughly carried out in the Prussian army than among any other body of men, the British army standing next.—(*Medical Review of Reviews.*)

Typhoid Treatment.—Dr. S. Birdsall, in the *Pennsylvania Medical Journal*, has the following to say:

Calomel well sustains its reputation as a remedy of undoubted value in the early stage of typhoid. Whether due to its germicidal or other qualities, the fact remains, that its judicious use in the early stage, favorably influences the course of the disease. If the case is seen early, give a quarter of a grain every two hours, for four to eight doses. If that amount does not act freely on the bowels, follow with rhubarb or some saline cathartic.

An enema of sodium chloride and warm water—a teaspoonful to the pint—should be given once daily for first week. Good authorities have stated that the typhoid bacillus cannot live in salt water. Although there may not be many typhoid germs within reach of a rectal injection, is just as well to use salt solution.

Some of it may be absorbed by the portal veins and so assist in maintaining the due percentage of sodium chloride in the general blood supply. I regard bismuth subgallate as our most efficient intestinal antiseptic. In recent years I have given it in almost every case of typhoid. If it is contra-indicated on account of constipation, silver nitrate may be given, one-fourth grain pill three times daily; omit at the end of second dozen, as advised by the late Dr. Pepper, in his "Practice of Medicine."

BOOK REVIEWS

Studies in the Psychology of Sex. Sexual Inversion. By Havelock Ellis, L. S. A. (England); Fellow of the Medico-Legal Society of New York and the Anthropological Society of Berlin; Honorary Fellow of the Chicago Academy of Medicine, etc.; General Editor of the Contemporary Science series 1899. The "Studies in the Psychology of Sex" will probably be completed in five volumes. "Sexual Inversion" is second volume in the series. Pages xi-272. Size, 8 $\frac{5}{8}$ x 5 $\frac{3}{4}$ inches. Extra Cloth, \$2.00 net, delivered. Sold only to physicians, lawyers, advanced teachers, and scientists. Philadelphia, Pa.: F. A. Davis Co., Publishers, 1915-16 Cherry Street.

This subject, beyond all doubt one of deep interest to the physician, is exhaustively treated by the author, who approaches it with the feeling that it is one whose elucidation will be of great benefit to those whose profession demands a clearer knowledge of a psychological condition whose existence is an established fact. He points out that examples of sexual inversion are not at all infrequent, but on the contrary are so numerous as to admit of their being divided into well defined groups. The subject matter is treated frankly, but without offense, and the reader feels that the author is a man who has been impelled to his work by a sense of duty to members of the medical and the legal profession.

The author cites a number of cases, among them several noted ones, and brings his subjects for discussion from all lands. The legal aspect of the matter is touched on by him, and it appears that he feels there can be little done in the way of controlling the actions of inverts by law, owing to the peculiar nature of the case. "It may further be pointed out," he says on page 211, "that legislation against homosexuality has no clear effect either in diminishing or increasing its prevalence." Later he says: "It should be the function of the law in this matter to prevent violence, to protect the young, and to preserve public order and decency. Whatever laws are laid down beyond this must be left to the individuals themselves, to the moralist, and to public opinion."

The book is one that may be read with profit by the physician or the lawyer. The publisher has done his share to make the book of value.

International Clinics. A quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pædiatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose, and Throat, and other Topics of Interest to the Student and Practitioners by Leading Members of the Medical Profession Throughout the World. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, with the collaboration of John B. Murphy, M. D., Alexander D. Blackader, M. D., H. C. Wood, M. D., T. M. Rotch, M. D., E. Landolt, M. D., Thomas G. Morton, M. D., Charles H. Reed, M. D., J. W. Ballantyne, M. D., and John Harold, M. D., with Regular Correspondents in Montreal, London, Paris, Leipsic, and Vienna. Volume IV. Eleventh Series. Price, \$2.00. J. B. Lippincott Company, 1902.

Volume IV of the International Clinics is a quarterly devoted to the report of special clinics, and the discussion of special cases and general medical topics, by the most prominent physicians of this and other countries.

It contains 302 pages with 107 illustrations, many of which are particularly fine, and 34 selected formulae.

There are 36 authors represented in this book and among the more important articles are: Remarks on Strychnine, by A. Jacobi, M. D.; A Description of the Methods of Investigating the Action of Drugs, by Horatio C. Wood, Jr., M. D.; A Modified Technique in the Spinal Injection of Cocaine, by A. Guinard, M. D.; Deformities in Children, from the Standpoint of the General Practitioner, by John Madison Taylor, M. D.; and the Modern Treatment of Some Common Dermal Affections, by William S. Gottheil, M. D.

The fine quality of the subject matter and the remarkable low price recommend this work to every progressive medical man.

Venereal and Sexual Diseases. A Manual, by Wm. A. Hackett, Ph. G. M. C. P. S. (Ont.); Professor of Dermatology and Venereal Diseases Michigan College of Medicine and Surgery; Attending Physician to Emergency Hospital, Detroit; etc., etc.; and N. E. Aronstam, M. D., Ph. G.; Assistant in Chemistry and Clinical Dermatology, Michigan College of Medicine and Surgery; Attending Physician to Emergency Hospital, Detroit; etc., etc. Cloth; pp. 202, with numerous Illustrations. G. P. Engelhard & Co., Chicago, 1901.

This small but comprehensive book, which is dedicated to Prof. O. Lassar, M. D., goes at the subject of the diseases mentioned from the

practical side and has for an object the furnishing of a practitioner with useful hints and directions on the diagnosis and treatment of venereal disease. An important branch of the work is the illustrations of the most modern appliances used in treatment and these all find a place in the manual's pages, while the text with them is clearly and simply written. The medicinal treatments recommended are those which have been set down by some of the well known syphiliographers, and there are evidences of careful compilation.

The book is divided into four parts, as follows: I. Gonorrhœa and its Complications; II. The Venereal Ulcer and its Complications; III. Syphilis; IV. Sexual Diseases. Part IV contains a brief discussion of the physiology of sexualism and some considerable comment on sterility and impotence, following the suggestions laid down by Krafft-Ebing, Caspar, Have-lock, Ellis, Lombroso, Keyes, Lydston and others. The subject matter throughout the book is well and conveniently arranged so as to be easy of access to the reader, while a topical reference index in the back of the book enables the student to turn directly to any desired subject. The book is well published.

The Medicinal Plants of the Philippines. By T. H. Pardo de Tavera, Doctor en Medicina de la Facultad de Paris, Comisionado Científico de S. M. en las Islas Filipinas y Delegado General en las Mismas de la Societe Académique Indo-Chinoise de Francia, Miembro Fundado Correspondiente de la Sociedad Espanola Higiene, etc. Translated and revised by Jerome B. Thomas, Jr., A. B., M. D., Captain and Assistant Surgeon, U. S. V. Published by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia, 1901. Price, \$2.00 net.

With the recent acquisition of the Philippines, the question of their resources is still an interesting one to all branches of usefulness and Dr. de Tavera is well qualified to speak of the medicinal qualities of the plants of the islands. His work is of ten years' standing, but owing to the small knowledge of Spanish held in the United States, particularly among members of the medical profession, it has been comparatively little known. Dr. Thomas, whose experience on the ground makes his task somewhat easy, has proved a capable man in his task of translating the book into English and has brought to English-speaking practitioners a book that should be both helpful and interesting. The publishers have not failed the author.

The American Edition of Nothnagel's Encyclopedia. Variola, (including Vaccination). By Dr. H. Immerman, of Basle. Varicella. By Dr. Th. von Jurgensen, of Tubingen. Cholera Asiatica and Cholera nostras. By Dr. C. Liebermeister, of Tubingen. Erysipelas and Erysipeloid. By Dr. H. Lenhardt, of Hamburg. Whooping Cough and Hay Fever. By Dr. G. Sticker of Giessen. Edited, with additions, by Sir J. W. Moore, B. A., M. D., F. R. C. P. I., Professor of the Practice of Medicine, Royal College of Surgeons, Ireland. Handsome octavo volume of 682 pages, illustrated. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, \$5.00 net; Half Morocco, \$6.00 net.

The importance of the diseases treated of in this work is so well recognized and the subject is so thoroughly covered, particularly by German writers, that there would seem to be little room for the work of an editor in connection with writings on the subject. But the editor of the book in question has not only added to and bettered the writing of some of the contributions to this work, but he has also incorporated in it the result of some of his experiences of thirty-three years' practice in medicine. Immerman, of Basle, contributes a valuable commentary on Variola, touching also on Vaccination and Variloation, which is a strong factor in making the whole work useful to the profession. It is a particularly timely article just now and it is written with strength and force. The editing of Sir J. W. Moore brings the contents down to date and he has been unusually successful in fulfilling the task allotted to him. The book as a whole is beyond question a valuable contribution to medicine.

Syphilis. A Symposium. Contributions by seventeen authorities. Cloth; pp. 122. Price, \$1.00. E. B. Treat & Co., New York, 1902.

This comprehensive little book is made up of reproductions from special contributions on the subject of syphilis, originally published in one of the special numbers of the International Medical Magazine and comprising the practical opinions and experiences of members of the profession whose knowledge of the subject in hand entitles their words to serious consideration. The writers of the papers are L. Duncan Bulkley, A. M., M. D., Follen Cabot, Jr., M. D., Louis A. Duhring, M. D., Prof. Fournier, M. D., Eugene Fuller, M. D., E. B. Gleason, M. D., William S. Gottheil, M. D., Robert H. Greene, A. M., M. D., Norman B. Gwyn, M. D., Orville Horwitz, M. D., Edward L. Keyes, M. D., G.

Frank Lydston, M. D., D. J. McCarthy, M. D., Thomas G. Morton, M. D., Boardman Reed, M. D., A. Robin, M. D., and J. D. Thomas, M. D. It is interesting to observe the unanimity along certain lines manifested by authorities in the book, while at the same time there are points of wide deviation. The handly little work concludes with a set of questions and answers, regarding the diagnosis of syphilis and the question of heredity in connection with the disease. It certainly covers the ground in many directions and should be of value to men in the profession who are specially interested in the treatment of syphilis.

Lea's Series of Pocket Text-Books. Hayden on Venereal Diseases. A Pocket Text-Book of Venereal Diseases. For Students and Practitioners. By James R. Hayden, M. D., Chief of Clinic and Instructor in Venereal and Genito-Urinary Diseases in the College of Physicians and Surgeons, New York, etc. New (3d) Edition, thoroughly revised. In one handsome 12mo. volume of 304 pages with 66 engravings. Cloth, \$1.75 net. Flexible leather, \$2.25 net. Lea Brothers & Co. Publishers, Philadelphia and New York.

With this book in the third edition (mention of which was made last month) Dr. Hayden has taken the opportunity offered for a thorough revision, besides making some additions of interest to the profession. A new section on Vegetations and one on Herpes Progenitalis have been incorporated with the work. Diagnosis and treatment of the diseases with which the author's specialty has rendered him familiar are very complete and the form in which the book has been issued by the publisher commends it to the practitioner who wants a handy reference book. It is well illustrated.

The Principles and Practice of Medicine. Designed for the use of practitioners and students of Medicine. By William Osler, M. D., Fellow of the Royal Society, Fellow of the Royal College of Physicians of London, Professor of Medicine in the Johns Hopkins University, and Physician-in-Chief to the Johns Hopkins Hospital, Baltimore, etc. Fourth edition, 8mo. cloth, pages 1,100. D. Appleton & Co., Publishers, New York, 1901. "Osler's Practice" is very well known and the present edition contains some important revisions and additions to the subject matter of preceding editions. The author has added the results of his extensive clinical observations to the article on Typhoid fever and the topics of other acute affections of the human frame have also been elaborated, until the

present book forms a practically new edition of a work that has long been regarded as an authority.

The Four Epochs of Woman's Life. A Study in Hygiene. By Anna M. Galbraith, M. D., Author of "Hygiene and Physical Culture for Women;" Fellow of the New York Academy of Medicine, Etc. With an Introductory Note by John H. Musser, M. D., Professor of Clinical Medicine, University of Pennsylvania. 12mo. Volume of Two Hundred Pages. Philadelphia and London: W. B. Saunders & Company, 1901. Cloth, \$1.25.

Dr. Galbraith's contribution to medical literature on the subject of women's ailments is a comprehensive work on a matter to which she has devoted considerable time and on which she has previously written with ability. Its object is to show women what they must not do in order to retain their health and the book partakes of the nature of an essay on hygiene. It is a thoughtful and well considered work, and should be met with a warm welcome from suffering womankind.

A Manual of Ophthalmoscopy. For Students and General Practitioners. By J. E. Jennings, M. D. (University of Pennsylvania.) Author of "Color-Vision and Color-Blindness," Etc.; formerly Clinical Assistant, Royal London Ophthalmic Hospital, London; Member of the American Medical Association, Etc. With Ninety-Five Illustrations and one Colored Plate. Published by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia, 1902. Large 12mo. Price, \$1.25.

This book is an elaboration of a series of lectures which Dr. Jennings delivered before the students of the graduating class of the Beaumont Hospital Medical College, St. Louis. The reading matter is arranged systematically and is well illustrated. The use of the ophthalmoscope is carefully explained and the suggestions are of value to the student, the post-graduate and the practitioner of long standing.

Saunders' Question Compend. Essentials of Physiology. Prepared especially for Students of Medicine; and arranged with questions following each chapter. By Sidney P. Budgett, M. D., Professor of Physiology, Medical Department of Washington University, St. Louis. 16mo. volume of 233 pages, finely illustrated with many full-page half-tones. Philadelphia and London. W. B. Saunders & Co., 1901. Cloth, \$1.00 net.

This book form an important addition to the

series issued by this well known publishing house, being an entirely new work, full of information of value to the student in connection with text-book work. Questions touching upon the main points of the text follow each chapter, serving to fix the salient features of each division in the mind of the reader. The illustrations are for the most part full-page half-tones.

A Manual of Clinical Laboratory Methods. By John Benjamin Nichols, M. D., in charge of Clinical Laboratory, Garfield Hospital; Hematologist to Columbian University Hospital; Professor of Normal Histology in Medical Department of Columbian University, Washington, D. C. Illustrated. 8vo. Cloth, pp. 303. William Wood & Co., Publishers, New York, 1902.

The most important laboratory methods are presented in this work in practical and systematic form. The author states prefatorily that he is aware of the somewhat crowded condition of the field covered by his book, but bases his claim for recognition on the fact that much of value is contained in a small space; and this claim is well substantiated by the book itself.

Sanatorium for Colorado Springs.— Gen. William J. Palmer has donated 100 acres and \$50,000 to found a sanatorium in Colorado Springs. As already planned, two buildings will cost \$200,000 and \$50,000 respectively. The first will accommodate 100 patients who are able to pay a fair price for treatment. The class who can pay little or nothing will be accommodated in the other building to the number of fifty. Revenue from the large building will mainly support the smaller one. The sanatorium will be conducted on the German theory. The sanatorium will be east of the city, to procure the purest air and freedom from dust and smoke. The medical staff and the board of trustees are yet to be selected. A company will be incorporated. A large part of the money has already been subscribed.—(*Exchange.*)

Rheumatism.—

Potassium iodide.....	3 drachms
Calchicum (seed) wine..	2 ounces
Paregoric	2 ounces
Stramonium tincture....	6 drachms
Cimicifuga tincture....	3 ounces

A teaspoonful three or four times daily.

—(*Illustrated Medical Journal.*)

DETROIT MEDICAL JOURNAL

ORIGINAL ARTICLES

THE EPIDEMIC OF MILD SMALL POX.*

BY GUY L. KIEFER, A. M., M. D.,
Health Officer of Detroit, Lecturer on
Hygiene, Detroit College of Medicine.

Much has been said in the past few years on this subject and yet an examination of the Marine Hospital reports on the prevalence of small-pox in the United States will indicate that very much more remains to be said. These reports for the week ending March 14th, 1902, show that for the period beginning December 28th, '01, and ending March 14th, '02, a total number of 22,263 cases of small-pox has been reported in the United States, as compared with 9,406 for the corresponding period in 1901. This year the total number of deaths has been 661; last year, 136. Not only has the actual number of cases increased very much, but the proportionate number of deaths, the mortality rate, is considerably larger, being nearly 3% for the period given this year and less than $1\frac{1}{2}\%$ for 1901. This state of facts may be accounted for in several ways; first of all because so many physicians and even health officers still

insist on calling the disease by some other and, to their minds, less formidable name, as for example, Cuban itch, Cedar itch, Chicken-pox, etc. Secondly, because vaccination is not as rigidly enforced as it should be, owing to the belief of many of the less intelligent people that a "sore arm" is worse than a case of mild small-pox, and to their own selfishness and utter disregard for the welfare of their neighbors. And thirdly, perhaps, because of a faulty system of quarantine and other methods of restriction which exist, handed down to us for generations and based upon prejudice and ignorance rather than on a scientific knowledge of the propagation of small-pox.

The first named reason for the existence of so much small-pox is certainly a reflection upon the intelligence of a large number of members of the medical profession but it is nevertheless true that it exists.

During the period beginning July 1st, '01, and ending March 22nd, '02, we have had 36 cases of small-pox in Detroit, and of this number 24 contracted the disease by having been exposed to Cuban itch or Chicken-pox. Two of the cases came

*Read before the Michigan Academy of Science at Ann Arbor, March 27, '02.

from Alma, Michigan, where there has been an epidemic of what the Health Officer, in an article published in the *Medical Age*, February 10th, '02 calls Alma-pox. The patients both told me that they had seen a number of cases of Cuban itch at Alma, and that these cases went about the streets there. One of my patients had a very mild form of varioloid, but it was nevertheless typical. His illness began with a distinct chilliness, severe headache and backache, slight gastro-intestinal disturbance, and a temperature ranging from 102° to 103°. On about the fourth day of this illness a macular rash appeared, which became papular, vesicular and pustular in due time, umbilicated and dessicated. The patient was taken sick on January 18th and discharged from the hospital on February 5th. The eruption, which was limited to eleven pustules over his entire body, became pustular on the eighth day. After recovery there were but two pits, the other pustules leaving only nodules and no scars. The initial symptoms as described were given me by the patient who had been treated for grippe until the eruption appeared. I mention the case in detail because it was so very mild. The other case, which was contracted at the same time and place as the one just described, was a typical case of discreet small-pox corresponding to the description of such cases given in any text-book. Mr. B. (the second case) was in the pustular stage when I was called by his attending physician. The doctor had been treating him for grippe but when the eruption was in the first stages, he was inclined, as he told me, to change the diagnosis to chicken-pox. When, a little later, the vesicles became decidedly pustular and there was no question about it, the case was referred to me.

Mr. B. was taken ill on January 16th and was attended by his wife. He was removed to the small-pox hospital on January 23rd; on January 31st Mrs. B.

was taken with the disease. I have at present under treatment two cases of small-pox that were contracted from a supposed case of chicken-pox which had never been reported to this department. During the past week we have found eleven cases of small-pox among colored people in this city and all traceable to two cases that had gone about with what they supposed was "Cuban itch" and which were so mild that they had been neither diagnosed nor treated by a physician. On March 4th a local physician was called to see a patient in a boarding house. He diagnosed the case as chicken-pox, but isolated the patient as best he could. On February 23rd he called me to see another case in the same house and on February 26th another one followed. The latter two were both small-pox (varioloid) and the only source of infection that I could find was the first case which was mistaken for chicken-pox. I did not see that patient until after her recovery but she then showed two decided pits, a number of nodules and many pigmented spots where the eruption had been. It seems to me that this brief summary will bear out my statement that the continuance of small-pox in our country is due to some extent to faulty diagnosis. Why should we conclude, because these cases are mild and because the patients neither die nor become horribly disfigured for life, that the disease cannot be small-pox? Would it not be equally just to say that any case of scarlet fever which does not either prove fatal or leave the child a sufferer from Bright's disease or entirely deaf as a result of otitis media, can therefore not be scarlet fever? Or if we are to conclude that a given case cannot be small-pox because it makes a complete recovery in from two to three weeks, why then should we not logically say that any case that completes desquamation in less than four or six weeks cannot be scarlet fever?

Perhaps it would also be fair to con-

clude that a case of diphtheria which recovers in from two to three days should be called by another name and I have no doubt this would be done more frequently were it not for the aid and positive diagnosis furnished by the bacteriologist in demonstrating the presence of Klebs-Loeffler bacilli. It seems to me that this result of mild forms of various diseases is a very natural consequence of the labors of hygiene and public health work and a result that we ought to expect. Is it not natural that vaccination and re-vaccination for a number of generations should have some effect upon the susceptibility to small-pox in the present generation, even if the particular person has himself never been vaccinated?

Now in regard to vaccination. Of the 36 cases before referred to, 17 had never been vaccinated and 14 not since their infancy; and as these were all adults the period would in each case have been at least 20 years. One was vaccinated in 1890, one in '91, one in '93, one in '99, and one case was very badly pitted, evidently from a previous attack of small-pox. There was, then, only one case besides the one who had small-pox, that had been recently vaccinated. This case (Miss H.) was the one that was contracted in a boarding house from a supposed case of chicken-pox. The doctor who attended the chicken-pox case vaccinated the Miss H.'s mother and a number of other persons in the house and none of them took the disease; he did not vaccinate Miss H. because he supposed her vaccination of three years' standing would protect her, inasmuch as at that time, according to her report, she was quite ill with constitutional vaccinia. This of course only shows that she is particularly susceptible and should certainly have been vaccinated again.

Whenever we find a case of small-pox we look up all persons who have been exposed either directly or indirectly and vaccinate them. In this work we have

a good opportunity of seeing how many have been recently vaccinated and it is astonishing to note the small number. A large percentage of all classes have been vaccinated during their infancy and they seem to think that is sufficient. If we could succeed in having everybody vaccinated at least once in five years, the dreaded disease, small-pox, would of course soon be eradicated. Before leaving this part of the discussion I wish to refer to the first case of these 36 which shows in a very neat manner the efficacy of vaccination. The patient, a child two years of age, had been ill six days when I was called and found a severe case of small-pox. The father worked in a large factory and consequently all of the other employes had been indirectly exposed. We offered free vaccination to the employes, about 250 in number, and they all submitted but one. Two weeks later I was called to see S. K., ill with small-pox. Upon inquiry I learned that he was the man who had refused vaccination and who quit his position rather than submit. His was the only case traceable to the child.

Having diagnosed a case as small-pox properly, how shall we prevent the spread of the disease? Upon this point there has been considerable change of opinion of late, and justly so. The method at present practiced in Detroit is as follows: We remove the patient to the small-pox hospital at once, vaccinate all inmates of the house, disinfect the rooms and their contents, including the clothing of all persons living in the house, thoroughly with formaldehyde, disinfect the persons themselves by means of a bichloride of mercury bath, paying special attention to the hair, and then open the house and do not quarantine. We then keep all persons who have been directly exposed in the house from which the patient was removed under daily observation for a period of two weeks so that any possible new cases may be promptly removed.

Besides these precautions we locate as nearly as possible all persons not living in the house who have been directly or indirectly exposed to the patient and vaccinate them and whenever it is possible disinfect their clothing. If it is not possible to remove the patient to the hospital, we isolate him as best we can at his home, quarantine the house absolutely and place guards in charge to see that the quarantine is observed. After the disease has run its course we disinfect with formaldehyde. By following out this procedure in the present epidemic we have succeeded in limiting the disease to the family in which it appeared in every instance but one and that was the case of S. K. referred to above, who had been indirectly exposed and refused to get vaccinated. Again there were but two instances where the disease spread even to members of the same family and these were the cases of Mrs. B., above referred to, who insisted on accompanying her husband to the hospital, and Mr. and Mrs. J. O. whom I quarantined at home after their brother had been removed to the hospital. I did quarantine them because the patient had been ill for nine days when I was called and the house was so small that I felt confident that they had been more than ordinarily exposed; besides Mrs. O. is the woman who had had small-pox and I considered her immune and therefore judged that I was justified in quarantining the one possible case, that of Mr. O. To my great surprise however, both man and wife came down with the disease on the thirteenth day after their brother had been removed and I now believe that if I had adhered to our rule, disinfected and not quarantined, perhaps these two persons would not have taken the disease. I may therefore say that out of the 36 cases in Detroit from July 1st, '01, to March 22nd, '02, twenty-four gave a history of exposure to chicken-pox or Cuban itch, eight came to the city with the initial symptoms of

the disease and unable to account for their infection, but only four were directly traceable to our own cases. It seems to me that if the old system of quarantining the family after the removal of the infected person had been practiced we would certainly have had a great many more cases. And yet there are physicians who hold that everyone who has been exposed should be quarantined for a period of two weeks—a proposition that is not only nonsensical but almost impossible. Several times during the past few weeks I have been asked by laymen and also by physicians, "Did you remove a small-pox patient from such a place to-day?" Upon being answered in the affirmative they will ask why the house is not quarantined. I have gone into a discussion of the methods of restriction somewhat in full because I feel that a reform in this respect is necessary. The practice of quarantining empty houses—empty so far as infection is concerned—is a needless expense to the county and, in my experience, an unsafe procedure for the people, both those quarantined and those at large.

In Philadelphia there is a large epidemic of small-pox at the present time and there has recently been appointed a commission consisting of Profs. Shoemaker, Hare, Tyson, Henry and Anders, to advise with the health authorities on this subject. The commission met February 10th and considered the advisability of discontinuing the system of quarantine. It was decided to reduce the length of the period of quarantine. As soon as a case of small-pox has been sent to the Municipal Hospital and every inmate of the house vaccinated and the house thoroughly disinfected, the quarantine will be raised. The *Philadelphia Medical Journal* of February 15th, '02, has an editorial on this action in which it says among other things: "The city authorities of Philadelphia deserve some credit for taking this matter in hand for

investigation and action. The public needs education on this whole subject of quarantine: and the profession needs some too." *American Medicine*, February 15th, '02, gives the following brief editorial on the subject: "Quarantine after proper disinfection is unnecessary. This is the conclusion reached by most of the sanitary authorities. The reserve of doubt consists in the uncertainty as to what is proper and thorough disinfection. Physicians, nurses, etc., in attendance upon small-pox patients do not convey the disease to others when adequate precautions have been taken. It is even contended that an exaggeration and extention of quarantine regulations after the patient has been removed, without thorough fumigation, tends to increase the number of cases, while with perfect disinfection of the house, etc., and with plenty of fresh air and sunshine, there is no danger whatever of the multiplication of cases."

In conclusion, let me say that in considering methods of combating small-pox we must remember the words of that grand old man in clinical medicine, Gerhardt, "Erst untersuchen, dann urtheilen, dann helfen."

Practical Advice.—Dr. William M. Polk, in an article on "Specialization," says: "Facts are stubborn things and the sooner faced, accepted and acted upon, the quicker the victory. In the face of present surgical perfections, it is truer than ever before that no great and worthy success can be reached in any of the departments of surgery by any one deficient in a thorough knowledge of its principles, and the one who first studied these principles as exemplified in practical surgery in general, and then as exemplified in the region or regions he intends to specialize, will make the best specialist. With a foundation, the greater the opportunity for special study, the higher the perfection."

ANÆMIA.*

BY DR. C. E. BOYNTON,
Los Banos, Cal.

The color of the lips and the gums of every patient coming to us for treatment should always be carefully noted, and we should be particularly on the look-out for anæmia both before and after the birth of the child.

I have laid down these rules for myself to follow in the treatment of an anæmic or weak mother who consults me;

1st. To correct vomiting, if that is present. Cerium Oxalate in the No. 3 tablet form every one to three hours usually succeeds admirably in controlling the nausea.

2nd. To hit the anæmia directly I prescribe—B Iron Citrate (triturated) Calcium hypophosphite aaʒi. Sig. About 15 grains dry on the tongue and swallowed with a drink of water before meals.

3rd. Auto intoxication may require the sulphocarbonates. A drop of H N O³ (Nitric acid) added to a solution of Sodium sulph. materially improves its taste.

4th. The well-known tablet of Aloin, 1-10 gr.; Bell. Ext., 1-10 gr.; Podoph. Ext., 1-10 gr.; and Nux. Vom. Ext., 1-10 gr., t. i. d. will correct nearly any factor of constipation in the case.

5th. A glass of milk two or three times a day, fresh from the cow, will add decidedly to the improvement of the case. And if the patient can be prevailed upon to swallow three to twelve eggs raw every day medical services will very shortly be less in demand for this patient.

Sometimes the liver fails to perform its functions; in that case I prescribe Sodium Phosphate ʒij before breakfast and often erif required. This will soon clear the complexion and correct the depression, melancholy, etc., not to mention the formication and perverted appetites.

*Written for the Detroit Medical Journal.

PHTHISIS-THERAPY IN SOUTHERN NEW MEXICO.

With Particular Reference to the Government Sanitarium at Fort Bayard and the St. Joseph's Sanitarium at Silver City.*

BY EARL S. BULLOCK, M.D.,
Medical Director of St. Joseph's Sanitarium, Silver City, N. M.

There is no difference of opinion among authorities as to the proper method of treatment of pulmonary tuberculosis. All unite in laudation of the Brehmer principles—rest in the open air and forced nitrogenous feeding. The careful application of this method has revolutionized all previous thought on this subject, and, regardless of climate, has given truly remarkable results, particularly in early stage cases. In Edinburgh, with its cold, damp atmosphere, on the coast of Maine, in the Adirondacks, in fact in almost every sort of climate, good, bad and indifferent, the pulmonary invalid is being restored to health. Doctor Brehmer blazed the path and all follow his lead.

That the influence of a favorable climate is next in importance to proper management is also an admitted fact. Before Brehmer proved the correctness of his principles, pulmonary invalids were being restored to health in the bracing, we might well say life-giving atmosphere of the arid mountains and high plateaus of our western states—and that without reference to proper management; for, in fact, every principle of correct living was and still is violated by the average health-seeker. It would then, naturally be expected that careful management in a favorable climate would give hitherto unsurpassed results, and that this expectation was a reasonable one has been proved by the results obtained at the government sanitarium at Fort Bayard, N. M. At this institution a rigid enforcement of the principles of Brehmer, in an ideal climate, has substantiated the claim of both proper

management and a favorable climate environment.

With reference to phthisis-therapy, the climate of the Silver City region is perfect. Such average conditions of weather and temperature prevail that patients can be comfortably kept out-of-doors all the year round. With an altitude of 6,000 feet and an atmosphere almost absolutely dry the influence of latitudes is so modified that our summers are cool and delightful. In the shade it is never too warm for perfect comfort. A cooling breeze is never absent. Sunstroke and heat prostration are unknown. Evaporation is so rapid in high dry regions like this that visible perspiration does not occur. Water is cooled for drinking without the use of ice by simply placing a wet cloth around the container. With the latitude that of Savannah, Ga., and an atmosphere so clear that practically no obstruction is offered to the sun's rays, the actual sun temperature is often very high, even in winter. I have seen the thermometer register 104° F. in the sun at Christmas time. The cool delightful summer is, then, the result of altitude and intense dryness. It is, of course, well known that the air's capacity for retaining heat is directly proportionate to the amount of moisture it contains. One may then understand why, when the influence of the sun is removed in a dry region like this, or in the shade, it is always cool. So, it follows, that in summer, to have our patients cool we place them in the shade and during the winter they can be left warm in the sun.

As might be inferred, our winter days are always warm. A freezing temperature is unknown in the day time, although at night the thermometer often falls to 20° F. There is, then, a very great difference between night and day temperatures the year around. It is a great mistake, but one that is often made, to describe the climate as equable; a range of 40° in 24 hours is by no means uncom-

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non. As is common to dry countries generally, the nights are always cold and even in summer a blanket is a congenial covering.

On account of the intense dryness the country is barren, almost desert. With the exception of a few stunted trees, cacti, and hardy native grass, nothing grows without irrigation and, as water is scarce, irrigation is possible only on a very small scale.

Wind-storms, especially during March and April, are characteristic of the high plateaus of the western states, and when the country is flat, as at El Paso, Texas, and Dunning and Albuquerque, N. M., they become dust-storms which, if not positively detrimental, are very annoying to the pulmonary invalid. Among the mountains, as at Silver City, the force of the wind is broken and dust-storms are practically unknown. This brings me to a point that I would like to emphasize: There is hardly a day in the year that is not favorable to the pulmonary invalid.

During July and August, an afternoon shower is common, though occasionally we experience a year when it forgets to rain altogether. Several times during the misnamed rainy season a torrential rain occurs, which, however, rarely continues more than 15 or 20 minutes. Such rains fill the gorges and usually dry creek-beds with rushing water. So steep is the country, however, that within an hour one can cross them without wetting his feet, so rapid is the fall. In brief, the climatic statistics of the Silver City region are as follows: Mean annual temperature, 54° F.; relative humidity, 46; absolute humidity, 1.71 grains; rainfall, 12.3 inches; cloudy days, 37.

The government sanitarium, which was established two and one-half years ago, is at Fort Bayard, among the hills and mountains nine miles from Silver City. Fort Bayard was a military post until it was transferred to the Medical department of the army and for years it has

been known in army circles as the most healthful of military stations. By putting it in good repair, introducing modern plumbing, etc., it was easily converted into a very acceptable sanitarium. It is built around a plaza or parade-ground about 400 feet square, the officers' quarters being on the west side, quarters for the ambulant patients in the old barracks on the east, and the north and south sides are occupied by executive buildings, storehouses, etc. The old post hospital accommodates patients with advanced diseases. The principle of Brehmer is the therapeutic key-note of the institution. Medication is strictly symptomatic and tonic. No attempt at any so-called specific medications is made. The patients are practically in the open air all the time; for even in the barracks the windows are never closed. The patients are supplied with an abundance of plain good food, features of which are eggs, milk, and red meat. The patients expectorate into portable paper boxes, which, with their contents, are burned as often as necessary.

Experience at this institution has proven that pulmonary tuberculosis, in a favorable climate, is curable in a much greater proportion of cases and in later stages than has hitherto been known.

Two years' experience at the government sanitarium as pathologist and diagnostician has so impressed me with the value of the Brehmer method in an ideal climate that I have succeeded in establishing with the co-operation of the Sisters of Mercy an institution here at Silver City devoted to this line of work. Unlike the institution at Fort Bayard, however, which is under the command of a medical officer and is solely for officers and enlisted men of the army, the management here has been placed wholly in the hands of an advisory board, composed of specialists. This advisory board was formed not only to prevent over-enthusiasm on the part of the individual phthisi-

sis-therapist but to safeguard the scientific future of the institution.

The building itself has been especially designed to meet the requirements of a modern sanitarium for tuberculosis patients. It is built around a court, in the old California mission style and, being but one room high and one room thick, with porches outside and inside upon which each room opens by means of French windows, it is really like a succession of cottages. The fort, an old building, is used for patients requiring more distinctly hospital treatment. The dining-room, kitchen and the research laboratory are provided for in separate buildings. As soon as practicable a series of cottages will be constructed for the accommodation of patients accompanied by one or more members of their family.

A second, or daughter institution, has been planned, where patients will be treated who are able to pay but a nominal sum. For the success of this, a liberal endowment is necessary and as yet it is a part of the future.

The sanitarium itself is situated on the hills above Silver City, and is protected by a series of foot-hills which rise from 300 to 500 feet above the buildings of the institution. Silver City is one of the few towns which still to a limited extent typifies the old Southwest and the hard-riding ranchero with cartridge belt and Colt's 45 still pounds through the streets. It has, however, a public water system, electric lights, schools and churches and in fact the usual quota of modern conveniences. Of a population of about 3,000 people, about one-third are Mexicans. The clear atmosphere and the golden sunshine of the Southwest now, as ever, beckon the sufferer with the terrible white plague and give him a prospect of renewed health. For the establishment of this institution and the scientific formulation of its claim, the government sanitarium at Fort Bayard should receive the thanks.

Silver City, N. M.

Sec. Root and Army Morals.—In its editorial columns the *Philadelphia Medical Journal* makes the following comment:—In a general order just issued to the Army, Secretary Root takes high moral ground. He points out the fact that the only way to avoid the effects of intemperance and sexual vice is to avoid those vices. This is a cardinal doctrine, which has long been recognized, and the tone of the Secretary's order, in which this doctrine is promulgated, is wholesome and inspiring. As a practical administrator as well as a practical moralist, however, the Secretary of War is probably not oblivious to the fact that the preaching of this doctrine has never yet abolished vice either in the army, or in the world at large, but he has probably reflected that he is in duty bound to give the army the benefit of it. For this he is to be highly commended.

There is at least one suggestion in Secretary Root's order that is worthy very serious consideration. This suggestion is not so much expressed as implied. We refer to the plan of instructing young men in the army about the frightful risks they run when they indulge in sexual vice.

In other words, let the appeal be made to their sense of self-preservation and their fear of physical consequences. The thought and the sight of loathsome diseases—such as gonorrhœa and syphilis—are not lost on all young men. We know of plenty of them (especially medical students) who could truthfully bear testimony to the restraining influence which the fear of these diseases inspires in them. Let the surgeons and officers in the United States Army take a little pains to enlighten the ignorance of the soldiers on the action of the gonococcus and of the syphilitic virus. A kindergarten, in which the effects of vice were taught by object-lessons, might not be an impracticable thing in the army as well as out of it. The attempt to restrain all men by mere moral precept has always failed. The United States Army is not likely to be suddenly turned into a moral Utopia. But that its morals could be somewhat purified by a glimpse now and then of the frightful spectre of venereal disease, is possible.

GONORRHŒAL RHEUMATISM.*

BY J. DOUGLAS WESTERVELT, M. D.
Shreveport, La.

The etiology of this disease has for many years given rise to much discussion without adding any reliable information on the subject under investigation.

The disease is recognized by many able writers as a toxemic effect of the gonococcus upon the general system, either by its presence in the circulation or that of the toxins of this micro-organism. They maintain that the specific urethritis is the local manifestation of the micro-organism, and that the accompanying arthritis is a localized product of a general infection. They go as far as to claim that the synovitis is in no way related to rheumatism, and even discard the name under which the disease is generally known, calling it gonorrhœal arthritis instead of gonorrhœal rheumatism. The reasons set forth for such views are, that the articular inflammation concurring with gonorrhœal urethritis is different from that of ordinary rheumatism. These writers seem to ignore what is universally conceded, that the clinical features of a mixed disease are entirely different from the typical features of the diseases forming the complication. The fact that an articular inflammation associated with gonorrhœa is dissimilar from an ordinary synovitis, furnishes no grounds for believing that these conditions have no inter-relation. It is claimed by these authorities that gonorrhœal urethritis causes the articular disease and yet they cannot explain its mode of action in producing the two forms of inflammation. If the pyæmic theory is accepted, why are the joints alone involved? Why are not other tissues invaded? Why is the arthritis sometimes non-articular and sometimes polyarticular? Why should the large joints be more liable than the small joints, and why is the knee-joint so much more

frequently involved than the others? A general pyæmic infection should not be so restricted in its operation. It is claimed in behalf of the pyæmic theory, that gonorrhœal arthritis does not require for its production the usual exciting causes which invite rheumatic attacks, but can any one name any special exciting causes which invariably give rise to an attack of rheumatism? Gonorrhœal rheumatism occurs most frequently in the early part of middle life; so does rheumatism. It occurs more frequently in males than females; this is also the case with rheumatism. Gonorrhœal rheumatism occurs in only about 3% of gonorrhœal cases. If the gonococci or their toxins provoke the articular rheumatism it seems strange that they do so in only one or two cases in a hundred of gonorrhœal urethritis. According to the testimony of many trustworthy observers, the same forms of articular inflammation have been known to accompany urethritis not produced by the gonococcus. This weakens the theory of pyæmic infection and strengthens the contention by many writers of concurrent rheumatic disease, as a dominating factor.

Furthermore, it is very rare to find pyæmia or septicæmia resulting from inflammation of mucous membranes, and if it should, other contiguous structures would be likely to suffer as well as the joints.

Is it possible that gonorrhœal pyæmia will produce gonorrhœal rheumatism, and at the same time never cause pyæmic disease in any neighboring tissues or organs? It is true that the pyæmic theory is now more generally accepted than any other, but the clinical evidence upon which it rests will not bear a critical examination. It would seem, in the absence of any positive evidence to support the theory of pyæmia that accidental rheumatism as an intercurrent complication would be a logical inference in the determination of factors in gonorrhœal arthritis. There

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is much more evidence in favor of this theory than that of pyæmia, but the tendency of most writers to reason from the standpoint of an unwarrantable bias, leads them to ignore every argument which refutes the theory of gonorrhœal inflammation. They claim that the gonococcus has been found in these inflammatory lesions, but they overlook the fact that in the majority of cases it has not been found, and furthermore its presence does not prove it causes the lesion. The writer does not claim that all cases of arthritis in gonorrhœal disease are rheumatic nor that the gonococcus never exerts any provocative influence over the arthritic inflammation. The main contention of this paper is that the variegated clinical history of rheumatism shows that it is a potent factor in many localized lesions, and there is no justification in a sweeping denial of its relationship to gonorrhœal arthritis.

The symptoms of gonorrhœal rheumatism during the course of gonorrhœal urethritis are, a sense of uneasiness, aching, stiffness or lancinating pain in one or several of the joints. The knee is oftener involved than any other articulation, especially the left knee. Other joints may become consecutively or simultaneously involved. The articular inflammation usually develops in the later stages of gonorrhœa, and often after the urethral discharge has almost entirely ceased. The articular symptoms arise gradually without any alteration in the external appearance of the joint. As long as the affected part is at rest there is not apt to be much pain, but the least movement provokes it at once. The inflammatory process is of a sub-acute type and it never announces its advent with a chill as generally happens in pyæmic attacks. When the inflammatory attack reaches its culminating point the joint may become distended and give rise to considerable effusion. The articular inflammation may run an indefinite course and last weeks or months.

In these cases if the effusion is of a fibrinous character, ankylosis may result. In the treatment of this disease we must not lose sight of the fact that we have to deal with a mixed form of disease. We have the gonorrhœal element confronting us, and we also probably have a rheumatic element to claim our attention. Besides these conditions we may also be required to treat the general health of the patient. If there is a urethral discharge it must be treated; if there is a rheumatic condition it must be treated. If there is an impaired state of the health, this also must engage our attention. The local treatment of the articular inflammation will not differ materially from that of any other inflammation of the joints. We must allay inflammation, stimulate absorption of effusions and restore normal functions of the articulation. There are many methods of accomplishing these objects. For the urethritis we may resort to instillations of permanganate of potash, with the internal administration of cordial of cod liver oil compound (Hagee) with five grains of iodide of potassium to each tablespoonful of this preparation—a tablespoonful to be given four times a day after meals and at bed time. The iodide of potassium may be increased or diminished according to the requirements of the particular case. This disease with its painful accompaniments has a depressing effect on the vital processes, and rapidly impairs nutrition. The iodide of potassium removes the cause of the pains by its eliminating properties, and the cordial of codliver oil compound improves nutrition, tones up the nervous system and, by regulating the kidneys, allays the acridity of the urine. With such a constitutional corrective and suitable diet, and mild antiseptic injections or irrigations this disease is readily subdued. Besides the general restorative action of the above remedy, it directly increases secretion and excretion of urine and uric acid, and renders the urine less irritating to the inflamed

mucous membrane of the urethra. This preparation is therefore intended to meet both the rheumatic and gonorrhœal conditions of this troublesome disease.

It is palatable and efficient in the doses named, a tablespoonful after each meal and at bed time being the average quantity required for successful results.

Shreveport, La.

(Has Dr. Westervelt tried using Ichthyol in the case of a knee joint affected as the result of gonorrhœal rheumatism? If not, he will find its action of great benefit in cases of that kind.—Ed.)

The Doctor's Dream.—

Last evening I was talking
With a doctor, aged and gray,
Who told me of a dream he had,
I think 'twas Christmas day.

While snoozing in his office,
The vision came to view,
For he saw an angel enter,
Dressed in garments white and new.

Said the angel, "I'm from heaven;
The Lord just sent me down,
To bring you up to glory,
To wear your golden crown.

"You've been a friend to everyone,
And worked hard, night and day;
You have doctored many thousands,
And from few received your pay.

"So we want you up in glory,
For you have labored hard,
And the good Lord is preparing
Your eternal, just reward."

Then the angel and the doctor
Started up toward glory's gate,
But when passing close to hades,
The angel murmured, "Wait."

"I have here a place to show you;
It's the hottest place in hell,
Where the ones who never paid you
In torment always dwell."

And, behold, the doctor saw there
His old patients by the score,
And taking up a chair and fan,
He wished for nothing more.

But was bound to sit and watch them,
As they sizzle, singe and burn,
And his eyes would rest on debtors
Whichever way they'd turn.

Said the angel, "Come on, doctor,
There the pearly gates I see;"
But the doctor only muttered,
"This is good enough for me!"

He refused to go on further,
But preferred to sit and gaze
At that crowd of rank old dead-heads,
As they lay there in the blaze.

But just then the doctor's office clock
Cuckooed the hour of seven,
And he awoke to find himself
In neither hell or heaven.

—(DR. G. A. MOORE, Dunlop, Mo., in
Medical Herald.)

A New Decalogue.—Dr. G. E. Potter, of Newark, N. J., writes the following in an exchange:

1. Thou shalt remove surplus rugs, furniture, etc., and make ample room for your work.

2. Thou shalt maintain perfect ventilation without draughts.

3. Thou shalt keep the patient clean and quiet.

4. Thou shalt foresee the needs of your patients, don't let them ask for everything.

5. Thou shalt promptly remove and burn all sputum and thoroughly disinfect all culinary utensils and vessels used by the patient.

6. Thou shalt restrict visiting, loud talking, and above all whispering in the sick chamber.

7. Thou shalt not ask the sick what they want to eat; rather say, "I have prepared something dainty, and I want you to eat it."

8. Thou shalt not annoy the sick by telling your troubles, sad experiences, and *all* you know.

9. Thou shalt let the sun shine and try to be a sunbeam yourself.

10. Thou shalt remember that the tenth commandment is to mind your own business, follow directions faithfully, cheerfully and promptly, and the sick will arise and call you blessed."

Tyratol.—The name given to thymol carbonate produced by the action of phosphene upon sodium thymolate. It occurs as a white, crystalline powder, of neutral reaction, and having a slight odor of thymol. The dose is two grammes, three or four times daily. In children 0.5 to 1 gramme. The results are best with tape-worms.—(*Pharm. Zeitung*).

Were They Doctors?

Two men set out on life's highway
To reach a certain place,
And one was "slow but sure," and
One went a lively pace.

The man who rushed with all his might
Along the rocky way
Soon left his friend behind, but fell
Beside the road one day.

The other, who was "slow but sure,"
Kept plodding on and on,
And reached the end at last to find
That what he sought—was gone.

—(S. E. KISER, in *Cleveland Leader.*)

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

WALTER C. BOYNTON, Manager.

—ISSUED BY—

THE DETROIT MEDICAL JOURNAL CO.,

Note.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, to 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., APRIL, 1902.

ONE YEAR OLD.

With this issue the JOURNAL assumes a new form, which we trust will be more acceptable to its readers than the old one, owing to greater ease in reading. The new cover design has been adopted because we want every doctor who picks up the magazine to see what the name of the publication is, what it contains and who the contributors are. We have been trying for twelve months now to make the JOURNAL interesting and valuable to its readers. Some changes have been made from time to time, with a view to bettering the publication. Sincere criticism is always welcome and we would like to hear from you any suggestion that has for its aim the improvement of the JOURNAL and the extending of its sphere of usefulness. Beginning with this number, all the reading matter, except some poetical effusions, is set in large type. We believe that to the modern practitioner the subject of book reviews is one of some importance. We have therefore had them set in type that can be most easily read.

Our reception at the hands of the profession has been most kind and we desire here-with to extend our grateful thanks to those who have supported us. There have been those who said at the outset that a medical magazine founded on the lines of the DETROIT MEDICAL JOURNAL could not be successfully carried on; but a year's experience has given us ground to believe that they were mistaken. We try to have

everything in the sixty-four pages reliable and furnished by reputable people, in whose statements the profession may have the utmost confidence. We cannot be responsible for the views maintained by our contributors and our columns are at all times open to any reasonable refutation of statements made in the publication.

And now a word about subscriptions. With this issue, many of the subscriptions run out and we want to take this opportunity to call the attention of the readers of the JOURNAL to this fact. If you have been satisfied with the kind of magazine we are publishing, send us another year's subscription and we shall do our best to make you even better satisfied with it in the future. We are only a year old, but we are growing steadily and we feel that we have gained the support of many who at the outset did not look with much interest on our existence. We want to have everyone read the JOURNAL. Send on your subscriptions.

THE PHYSICIAN AND THE HEALTH DEPARTMENT.

The article by Dr. Guy L. Kiefer, published in this issue of the *Detroit Medical Journal*, seems to indicate that there is less of a hearty co-operation between the members of the profession in Detroit and the city health board than there should be to secure the best results. The doctor's figures, showing that out of 36 cases of small-pox in Detroit 24 gave a history of exposure to some disease resembling small-pox but called by some other and more attractive name is prima facie evidence that diagnosis in general is too lenient.

Apparently all that the health officer wants is to have the physician call a spade a spade and lean to the side of inconveniencing a patient who may be free from small-pox rather than to run the risk, in doubtful cases, of having a patient with real small-pox permitted to prac-

tically roam at large. Every physician, by the nature of his profession, is a guardian of the public health; and not only his patients but the citizens of the community as well have a right to demand a heavy reckoning at his hands if he has needlessly exposed anyone to danger from communicable disease. It is no doubt a serious matter for anyone to be quarantined; but it is a more serious matter, and one that affects many more people, to have a man who ought to be isolated permitted to enjoy his liberty at the expense of others' safety.

Students of social conditions and those who have interested themselves in just such questions as the one under discussion, say that it would be the right thing for the city to pay a wage-earner who is forcibly quarantined with a dangerous disease at least some portion of his regular stipend, to the end that he might accept quarantine with a better grace and maintain it more religiously than he does under the present circumstances. No one can blame the day laborer for not wanting to have himself shut away from his work for some time, to comply with a regulation whose value he does not understand. And it is very probable that a physician, called in to see a man who is the sole support of a family will hesitate to deprive him of his liberty unless he is positive that it is absolutely necessary. Absolute diagnosis in the early stages of any disease is naturally a matter that cannot be settled out of hand. And many a man will go on with his work in a crowded factory as long as he is able to stagger about.

An objection which is very promptly raised by opponents of this idea, and with some justice, it must be admitted, is that such a plan would be an irresistible temptation to a man to "soldier," with a view to getting something out of the city. This would require the connivance of the physician, however, and we are not ready to believe that Detroit practitioners would

lend themselves to such a plan. Another objection is that such a plan, even if carried out only in the cases the provision would be made to cover, would cost a good deal of money. While this is undoubtedly true, it seems that there could be few better directions in which money could be spent by the municipality than in protecting the health of its citizens. The plan proposed would unquestionably serve to make quarantine more easy and more absolute. And there is some merit in it.

While we do not know that Dr. Kiefer has ever expressed himself as being in favor of such a procedure, he is certainly desirous of securing all the assistance he can from the physicians located in Detroit. In the absence of some such relief as has been suggested, it is the duty of every practitioner to extend to the health department all the aid he possibly can in locating and isolating cases of diseases like small-pox.

RUNNERS AT MT. CLEMENS.

For a long time the physicians at Mt. Clemens, or at least a portion of them, have viewed with growing alarm the proportions assumed by the evil of employing runners to secure patients. It is a fact that is too well known to admit of much dispute that some practitioners at the Bath City make a practice of employing agents to procure patients for them. This method of getting business is not new, but even in the long time it has existed, since the days of Greece and Rome, it has never enjoyed an enviable reputation among right-thinking men and women. The agents employed in this occupation of securing business have not always been known as runners, but have been more commonly called by a name which is considered as expressing the greatest contempt.

The conditions against which complaint is now being made at Mt. Clemens have existed for a very long time, but that

is little excuse for their continuance. Some physicians of good repute make use of runners for securing patients, but that does not stamp the practice as reputable. Physicians in a town like Mt. Clemens have always to meet rather keen and sometimes unscrupulous competition and factions are almost always present at the baths, both in America and Europe. Several physicians of Mt. Clemens have formed a society which has for one of its objects the suppression of the runners, whom they regard as a nuisance. Public sentiment in the Bath Town seems to be largely with the society, many of the hotel men feeling that the existence of runners is detrimental to their business.

Nineteen physicians have signed cards which are hung up in several prominent places in Mt. Clemens, warning people against listening to the persuasions of runners, and stating specifically that no practitioner whose name is signed to the card will pay any person to secure patronage for him. This is one way of going after the difficulty and it will be interesting to see what the results are.

president, Dr. J. K. Gailey; Third vice-president, Dr. F. W. Robbins; Secretary, Dr. F. R. MacClure; Treasurer, Dr. R. T. Mason. The executive committee will consist of the president, the three vice-presidents and the secretary. Drs. McLean, Longyear, Robbins, Lowrie and MacClure form the committee on constitution and by-laws. The object of the association is to promote the interests of the hospital, co-operate with the board of trustees and advance sociability among the members of the association.

The sum of \$100 has already been raised for the memorial tablet to be erected to the memory of the late Dr. W. R. Haynes, a house physician of Harper who died as the result of septicæmia contracted in the course of his hospital duties. A committee of house physicians was appointed to confer with the trustees on the subject of naming a room in the new operating building after Dr. Haynes. If this is done, the tablet will be placed in the Haynes room.

EDITORIAL NOTES

Following the custom prevailing at several eastern hospitals, twenty-one of the house physicians of Harper, including the veteran and the active corps, met on April 3 and formed the Association of House Physicians of Harper Hospital. Dr. F. R. MacClure, senior house physician, called the meeting and presided at the preliminaries, afterwards yielding his place to Dr. H. O. Walker, first house physician after the civil board of trustees assumed management of the institution in 1865. The following officers were elected: President, Dr. H. O. Walker; First-president, Dr. H. W. Longyear; Second-vice-

Dr. Kiefer, in a recent public communication, called the attention of the citizens of the city to the fact that the alleys of the city were in an extremely unsanitary condition. The worst feature of his statement, which was entirely true, is the fact that no provision is made by the city government for keeping the alleys in proper condition as regards cleanliness. Ashes are removed from the alleys by the Department of Works, but there their duty ends—and ashes are not the worst breeders of disease that we have in our alleys, particularly in the summer months, when decomposition is rapid and exposure to disease on the part of the public is frequent. It is difficult to say just what can be done, with the departmental finances in their present condition. But something certainly should be done and that speedily, in order to avoid risk of great danger.

The evil effects of patent medicine were shown up at the last meeting of the health board, when Commissioner Kennedy called the attention of the board to a remedy which is being advertised largely, with the claim that it not only prevents scarlet fever but cures it in from one to two days after it has been contracted owing to a foolish neglect on the part of the patient to dose himself with the sovereign remedy. Some of the poorer classes, it is alleged, are taking this remedy instead of calling a physician, with the result that cases are not reported to the Health department. Something might be done toward making the advertiser of the nostrum suffer for advertising an impossibility. They have laws elsewhere which forbid advertisements of the class in question. Why not in America?

A recent order of the postal department, the result of long-continued effort on the part of Assistant Postmaster-General Madden, has resulted in difficulties for our esteemed contemporary, *Leonard's Illustrated Medical Journal*. Dr. Leonard, by way of slight retaliation, has announced his intention of becoming a Democrat, after a life-long adherence to Republican principles. His announcement has been the cause of some sarcastic comment on the part of the Detroit papers, most of which suggest that the threatened retaliation is inadequate to the wrong suffered.

West Bay City is also reported as suffering from an epidemic of small-pox, a large number of cases having made their appearance. The health officer of the city makes the claim that the prevalence of the disease is largely due to the negligence of patients, who not only do not report the case to the Health Department but do not even call a physician. He threatens offenders against the ordinance with fine or imprisonment—the latter pre-

sumably after the patient has recovered from the disease.

In the March number of the DETROIT MEDICAL JOURNAL appeared a cut and a brief description of a saline apparatus, quoted at \$1.25. This price referred only to the saline solution apparatus and not to the transfusion set, which was also illustrated in small form with the larger device. This explanation is made in view of the orders received for the transfusion apparatus in connection with that for the administration of the saline solution.

April 10 to April 12 was set as the date for the seventh annual meeting of the Western Ophthalmologic and Oto-Laryngologic Association and the meeting was held at the Auditorium Hotel. Before the meeting the society numbered about 150 members, but a large increase in members was made as the result of the meeting. A large number of manufacturers whose products were of interest to the members were exhibitors at the meeting.

The 1902 meeting of the American Medical Association will be held at Saratoga Springs, N. Y., from June 10 to June 13. The city is admirably adapted for the holding of large conventions, being well equipped with hotels and boarding-houses and having a convention hall with a seating capacity of 7,000.

A report of the meeting of the Central Michigan Medical society has been received, too late for extended mention in this issue. The society has a membership of forty and the following officers were elected for the year: President, S. H. Culver M. D., of Mason; Vice-President, H. O. Hage, M. D., of Lansing; Ballard, M. D., of Lansing.

NEW INSTRUMENTS & DEVICES

Mention of new instruments and devices in this department is entirely complimentary and articles illustrated are judged on their merits.

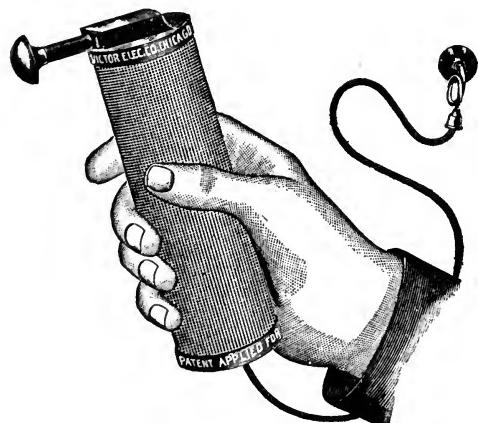
We invite manufacturers and physicians to send us matter suitable for publication under this head. A description of the device and an electrotype or half-tone with a base not greater than two and five-eighths inches should be sent.

Always mention the price of the article in question.

The management cannot undertake to return cuts unless postage for same accompanies the letter with which they are sent.

ELECTRO-MECHANICAL MASSAGE OUTFIT.

Massage has so long been recognized as a beneficial treatment in many bodily ills that it is scarcely needful to dilate on its usefulness. What the modern practitioner wants is some means of massage that shall be com-

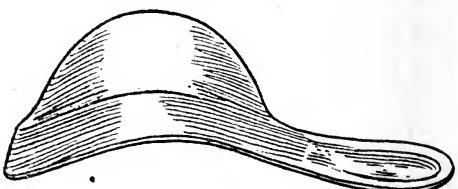


plete and sufficiently vigorous, while at the same time it does not entail too much fatigue on the operator. In many cases, massage by a physician, who knows anatomy thoroughly, would be of inestimable benefit beside the rubbing of a stronger but less scientific man. But the trouble has been that the physician became too easily

fatigued. Mechanical inventive genius came to his rescue with numerous vibrating devices, having electricity as their motive power. The one in question is one of the best of this class of devices. It weighs only three pounds and can conveniently be held in the hand of the physician, while it administers over 5,000 strokes a minute. A flexible connecting cord permits of connection to any electric lamp socket, doing away with the carrying about of any heavy apparatus. No intervening rheostat is necessary. The different massage implements fit into a chuck at one end of the device. For the complete outfit, including a finished oak case and five massage attachments, the price is \$50; this is for a 110 volt direct current. For a 220 volt direct current, \$10 additional is asked.

ARCH SUPPORTS.

Many patients suffer from a flattened foot, due to an extension of the tendons which ordinarily support the arch, and this case is often diagnosed as rheumatism of the feet. It is a simple matter to correct this difficulty without pain to the patient, by the use of arch supports, but the trouble has been up to now that the supports made have always cracked un-



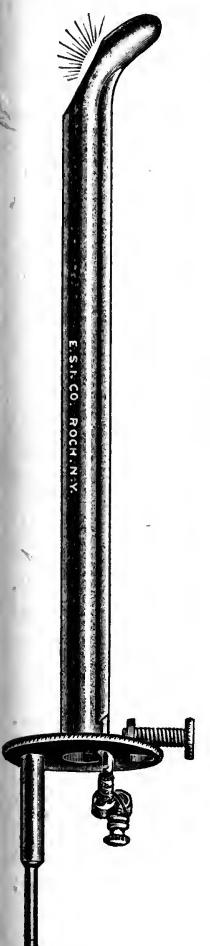
der the nickel-plate as the result of corrosion from the moisture of the feet. The illustration shows an arch support which possesses many advantages over similar devices. To begin with, it is short and allows free movement of the foot and particularly the front portion of it. Then it is hammered out of cold metal that is absolutely non-corrosive, insuring its remaining in the same shape as it is first made in. Steel supports corrode and

crack inside of three months, losing their shape and letting the strain of the weight come on the tendons again. These arch supports retail at \$3.00 apiece or \$5.00 a pair and are made from a plaster cast of the foot.

SWINBURNE URETHROSCOPE.

This device for the examination of the posterior urethra and its vicinity consists of a catheter-shaped conical tube, 15 centimeters long, with an auxiliary tube on the

concave side of the beak. In the tube is carried a small lamp - carrier, with a brilliant little light, which is claimed by the manufacturers to be heatless. Owing to the shape of the tube, the instrument is easy of introduction and complete examination is possible. An additional convenience is the presence of an obturator with the straight endoscopic tube, which fits in the interior orifice of the urethra and thus prevents the trickling of urine. The light being in an inside tube is entirely out of the way of any manipulation for cleansing the tissues. The endoscopic tube is provided with a spur on which a megaloscope may be carried, magnifying the visual field approximately sixteen diameters.



The megascope has been so constructed as to focus at from 8 to 24 centimeters, permitting its use in cystoscopes also, male and female. The price of the urethroscope is \$15.00 and that of the megaloscope \$5.50.

NEW CATHETER.

A new form of catheter, designed to take the place of soft rubber goods and also as a change from the woven cotton and silk goods has been put on the market. It is made of a new compound, which looks like black rubber and is firm and solid, much more acceptable than the old pattern, and it readily recommends itself to the profession. The solid nature of the material admits of a greater

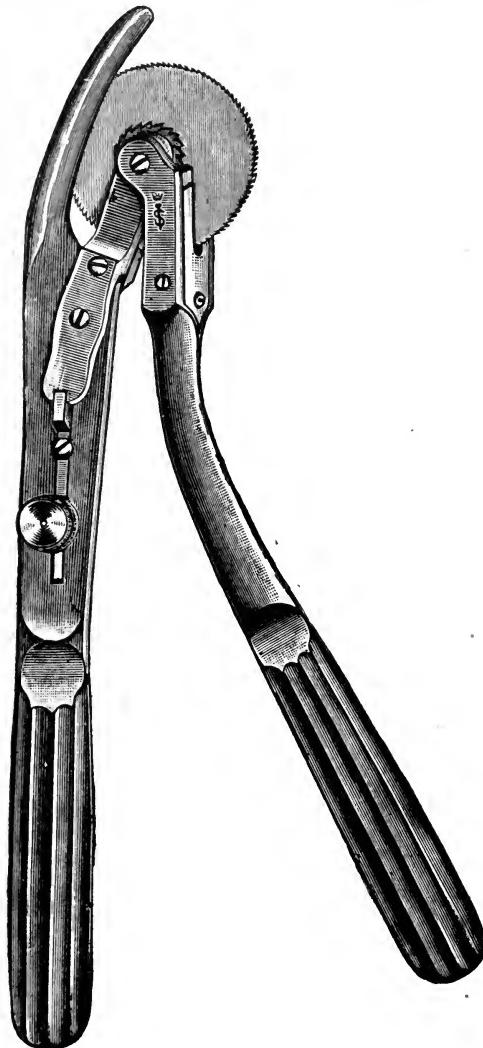


interior diameter than is possible in the case of soft rubber goods. The disadvantages of having the catheter kink or double upon itself when it is inserted are absolutely done away with and the return of the stomach or bladder contents is greatly facilitated by the large lumen of the catheter or tubes. The catheters run from size 6 to size 9, English scale, and they retail to the profession at 35 cents.

PLASTER OF PARIS SAW.

Many a physician who makes use of a plaster cast to secure an injured member is sometimes put to it to get the cast off again without injuring the skin of the patient. The instrument illustrated here-with solves the difficulty completely. A fine-toothed saw, operated by a ratchet and a lever handle, cuts through the plaster without difficulty, while a projecting lip on the opposite handle renders injury to the patient impossible. It is sure and safe, fulfilling the chief requisites of an

instrument of this nature. It is a most

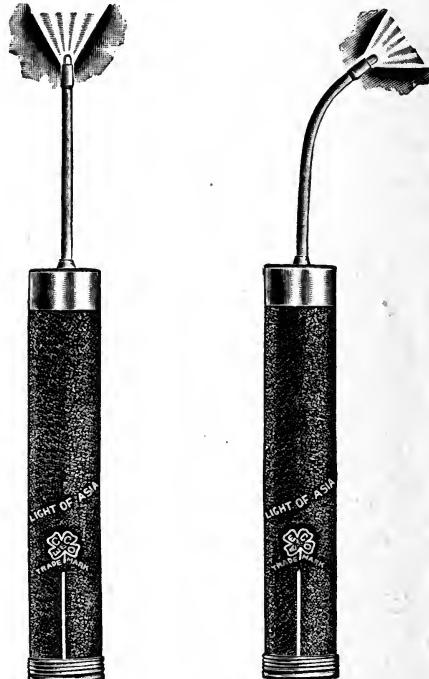


useful device, retailing to the profession at \$9.00.

FLEXIBLE ILLUMINATED PROBES.

Every physician and surgeon has at some time had occasion to make an examination of some cavity of the human body in which it was difficult to see what he was about. This difficulty is done away with by the instrument illustrated herewith, which throws a surprisingly strong light just where it is needed. The device consists of a flexible probe, bearing a small electric lamp at its tip and set

into a handle in which is stored the energy for illuminating purposes. The probes are easily bent into any required shape and are easily straightened again without damage to the instrument. The pressure of a button in the handle secures



the illumination of the small lamp, and the battery, when exhausted, is easily and cheaply renewed. The probes are made in six-inch lengths, at \$1.00; twelve-inch, \$1.25; and eighteen-inch, \$1.50. Special lengths are furnished to order.

Very Low Rates to the Northwest.—March 1 to April 30, 1902, the Chicago, Milwaukee & St. Paul Railway will sell tickets to Montana, Idaho and North Pacific coast points at the following greatly reduced rates: From Chicago to Butte, Helena and Anaconda, \$30.00; Spokane, \$30.50; Portland, Tacoma, Seattle, Victoria and Vancouver, \$33.00. Choice of routes via Omaha or St. Paul to points in Montana, Oregon and Washington.

For further information apply to any coupon ticket agent in the United States or Canada, or address Robt. C. Jones, Michigan Passenger Agent, Detroit, Mich.

THERAPEUTIC BREVITIES

Spontaneous Rupture of Eyeball. W. Whitehead Gilfillian, in the *Medical News*, reports an interesting case, excerpts from which follow:

M. F., female, French, aged eighty-seven years, entered the French Hospital April 3, 1900. The patient was treated for paralysis agitans. Her mental, as well as physical, condition was very poor. As the ophthalmologist to the Hospital I was called to see her in November, 1900, to treat her for a slight catarrhal conjunctivitis of both eyes. At that time I noticed senile cataract in each eye, as well as large opacities of the cornea, but there was no sign of staphyloma. The vision in each eye was very poor, being only 4-200. In the course of three weeks she was cured of the trouble with the conjunctiva. On February 27, 1901, at three o'clock in the afternoon, she complained of a very sharp pain on the left side of the head. At this time the patient was in bed, although a short time before she had been to the closet with an attendant. By the time the assistant house surgeon, Dr. Thomassen, reached her, there had been a large hemorrhage from the globe of the left eye, much larger than one usually gets in an operation for enucleation. The crystalline lens was lying on her left cheek, much vitreous had escaped, and a portion of the iris was prolapsed.

I did not see the patient until the following day. On examination I found that the opening in the cornea was in the center and seemed only large enough to allow the lens to pass through. It was horizontal and the edges were rough. There was much blood in the anterior chamber. The size of the eye was not diminished. The wound closed slowly, it being six weeks before the cornea was completely healed.

The patient was transferred to Bellevue Hospital. I was anxious to get the eye, if the patient died, and have a microscopic examination made. On July 1st I took up my service at the City Hospital, Blackwell's Island, and thought I might see the patient there, as most chronic cases are sent there from Bellevue. She never reached the City Hospital and must have

died during the hot spell in the last of June, although I could get no history of the case at Bellevue.

This case is strange in the fact that there was no traumatism nor was there any ulcerative process going on in the cornea. There was no staphyloma. Had there been any of these conditions, there would be nothing unusual about the case. The patient had well-marked arteriosclerosis, as might well be expected in a person of her age. It is possible, perhaps, that straining at stool may have ruptured one of the vessels of the eye and produced the hemorrhage, which, as I have already stated, was unusually large.

I have been unable to find any literature on the subject, or to find any colleague who has heard of a similar case.

Kangaroo Tendons.—For a correct result with the buried suture method three requisites exist, viz.: an aseptic suture, an aseptic wound and aseptic qualities preserved until union has taken place. Two things to regard at all times are, to take some means of preventing the entrance of pyogenic germs to the buried suture, and to allow no avenue of communication between the outside air and the wound itself. The *en masse* silk-worm sutures, removed after the wound is apparently healed, cause inflammation, followed by abscess in many cases. Dr. H. W. Longyear says, in the *Physician and Surgeon*: "I get over these difficulties very satisfactorily by first closing these parts (in a case of rupture of the peritoneum) externally by the use of a very fine running Kangaroo tendon suture and the application of aristol to the lines of union. The aristol adheres very closely and will usually protect the Kangaroo tendon from infection until its absorption occurs."

Kangaroo tendons properly prepared are treated in the following manner: One part of chromic acid is dissolved in four thousand parts of water and to this solution two hundred parts of carbolic acid or absolute phenol are added. The chromic acid has an extraordinary effect on the tendon. And when tendons are prepared by an experienced hand, they may be used within forty-eight hours. They are taken out of the solution and dried, afterwards being placed in a one-to-five carbolic oil. They are then ready for use.

Femur Fractures and the Ambulatory Pneumatic Splint.—Dr. W. B. Metcalf, in the *Journal of the American Medical Association*, is reported as making the following comment on the subject of femoral fractures: "The treatment of fractures of the femur has from time immemorial been an ungovernable condition, never fully under the control of the surgeon. The condition has been a source of anxiety to the surgeon and not an infrequent source of deformity to the patient. The injury has invariably resulted in shortening, which varied in amount from three-fourths of an inch to three and one-half inches, and in rare cases even more. With an average disability of twelve weeks (being the time offered by an insurance company as a cash settlement at the time of the accident). Heilfrich, in his book on Fractures, published in 1900, gives an average time for healing as thirteen and one-half months, with thirty-four per cent. able and sixty-six per cent. unable to work. In view of these facts, I report the following case:

"April 6th, 1901, Mr. A. G. B., age 34, married, weight 205 pounds, height 6 feet and 1 inch, sustained a fracture of the left femur while bowling, caused by muscular contraction in the effort to throw the ball. The fracture was complete, there being free mobility at the point of injury. Little care was used in moving him to his home, and as a result the tissues surrounding the fracture were very much mutilated. The ecchymosis and extravasation that followed involved the limb from below the knee to the crest of the ilium. Forty-eight hours after the accident the circumference of the injured limb at the junction of the middle and upper third was fourteen inches more than the right one at the same point. The amount of fluid at this time about the knee was enormous. In fact the whole picture of the injured limb was of as severe an injury as I have ever seen of a thigh, barring one requiring an amputation. Dr. Buford, who examined the limb, confirmed the severity of the injury. On the third day after the accident with the assistance of Dr. J. G. Hughes, a pneumatic splint was applied, the limb was measured and showed one and one-half inches of shortening. It was impossible at this time to get complete extension because of the great swelling. A gentle massage of the limb was kept up

at frequent intervals, which was easily done while the splint was on. By the fifth day the swelling had subsided enough so that the foot was brought down in perfect position.

"Twenty-four hours after the application of the splint, the patient was free from pain, and could move himself about in bed with perfect ease. Two weeks after the application of the splint, he was about the house. The next week he was going about the streets, and in less than four weeks after the application of the splint he was at his office, he was sleeping without the splint, and he was able to get into a bath tub unassisted. Measurements made by Dr. W. H. Vary, Dr. J. G. Hughes, Dr. Oschner and the author showed that there is no shortening in the injured limb."

Suppurative Pericarditis in Children.—Batten, in the *British Medical Journal*, states that fully 3 per cent. of the deaths in the Children's Hospital are due to this trouble, so difficult to recognize. Even with diagnosis made, the physician is often impotent to interfere.

Of 6 personal cases of this affection in children, from ten months to three years of age, all had existed for some weeks before admission to the hospital.

In every instance the pericarditis appeared to be secondary to some other affection (measles, pneumonia, bronchitis).

The patients often have an apparently healthy look (as far as nutrition goes), which, however, is belied by the very rapid pulse, flabbiness and wasting of the muscles, pallor, etc.

One symptom frequently encountered is the tendency to syncopal attacks, characterized in the infant by lividity of the lips, tachypnea and general moribund appearance.

Physical exploration does not supply the practitioner with much definite information. As a rule the area of percussion dulness was not increased, and murmurs were absent.

The amount of pus found in the pericardium varied from a few drachms to six ounces. The heart muscles and endocardium were natural. Empyema co-existed in 4 of the 6 cases.

Differential diagnosis in these cases must take into consideration the possibility of empyema and tuberculosis. The only symptoms at all suggestive of sup-

purative pericarditis are very rapid pulse and the syncopal attacks.

Lime-Water a Disinfectant for Fabrics.—Beyer has tested different methods employed for the disinfection of bed linen and underclothing. The ordinary methods by boiling are not suited to these articles, as the presence of blood, pus and faeces causes an ineradicable stain if a high temperature is used. Soaking the garments in solutions of various soaps for one or two days failed in every instance to kill cholera, typhoid and pyogenic organisms, which were mixed with the faeces with which the garments were smeared. In some cases the germs were killed when the solution containing the linen was kept at 50° C. for a few hours. With lime-water the results were much better. Sample garments which were soaked in this solution for twenty-four hours were found to be sterilized. An equally good result was obtained in a hospital where about one-half a cubic meter of soiled linen was soaked in lime-water for forty-eight hours, or for twenty-four hours if the clothing was first rinsed with lime-water, and then placed in afresh solution. The lime-water does not injure linen or cotton goods, but shrinks woolen to such an extent as to prevent its use.—(*Fortschritte der Medicin.*)

Danger in Laparotomy.—In laparotomy operations in the case of penetrating wounds of the abdomen some lowering of the mortality rate has been shown by recent statistics; for example, Morton (1889) collected 110 cases, showing a mortality of 62 per cent.; Coley (1890) collected 165 cases, with a mortality of 67.2 per cent.; while Fenner has lately gathered 152 cases with a total mortality of 57.23 per cent.—(*Clinical Review.*)

Enuresis, Nocturnal.—Articles are continually appearing in medical journals in which the possible reflex origin is never mentioned; and yet competent and trustworthy men have published reports in which this distressing affliction disappeared the day that an irritating eye-strain was relieved.—(*American Medicine.*)

CORRESPONDENCE.

Lakeview, Mich., March 31, 1902.

DETROIT MEDICAL JOURNAL:—

Hurrah for Dr. Sprague. To nearly every physician in the country, every mail brings pamphlets and papers by the dozen, all telling of the wonderful cures effected by some of Soup Stone's preparations.

They all contain reports of cases, by "eminent" doctors of whom I, at least, in my ignorance, have never heard. I conclude that there are many of the Soup Stone family in St. Louis, Mo.

But what seems most strange, to me, is the fact that so many are graduates of reputable colleges, men who had opportunities to know better and are simply peddling soup stones for these fakirs.

Indeed, I regard all ready-made prescriptions as being, mostly, fakes. Few cases, met with in our daily practices, are so nearly alike that an unvarying combination will do for all. Even if the same drugs are used the proportions should be varied to meet the indications. Each case with the constitutional peculiarities of the patient is a "law unto itself." The physician should be able to order his compound of Saw palmetto and Santal with aromatics just as well as to pay several times its value for a preparation by some "Pharmacal Co." If he is willing to admit his inability to do so, he has mistaken his calling and should quit practice, no matter how many diplomas he may hold.

This is becoming an enormous evil, but I suppose it will continue as long as there are "suckers" to fish for among the medical fraternity.

(Signed) DR. J. T. JOSLIN,
Lakeview, Mich.

(Dr. Joslin expresses himself in line with the stand taken by Dr. Sprague in the March issue. We gather from his letter that he is a great believer in a doctor's knowing just what he is giving his patient, not trusting to factory-made tablets unless he knows the manufacturer

to be a thoroughly honest and honorable man. We are glad to see that members of the profession agree with us on the stand we have taken against non-ethical preparations. There can be no question that in this modern day the making of tablets has risen to large proportions of importance to the practitioner. But it is axiomatic that a physician should demand as much honesty and care back of the furnishing of tablets as he does back of drugs for medical purposes. The doctor's thought is quite in line with the policy of the Journal.—Ed.)

Windsor, Ont., March 29, '02.

Dear Sir:—

Enclosed please find one dollar to pay for your much appreciated JOURNAL. My subscription ran out this month.

Yours truly,

(Signed) R. CARNEY.

WALTER C. BOYNTON, ESQ.,

MANAGER

DETROIT MEDICAL JOURNAL.

Sore Throat.—Sore throat is sometimes apparently almost epidemic, but it almost always results from a clogged condition of the system, as does tonsilitis. People in the winter season eat heartily, and seldom exercise to the point of perspiration. The bowels are very often constipated; the lungs are called upon to do more than their share of elimination; the glands of the throat being clogged with effete matter, as are the other parts of the body. This clogging results in inflammation, and inflammation means soreness.

A good sweat and an active movement of the bowels eliminate this waste effete matter and remove the clogged condition, which is the real cause of the trouble. To cure a sore throat, move the bowels freely, stimulate the skin to action, and above all, do not be afraid of some active exercise and pure air. Besides these measures it is well to rub the throat with a strong counter-irritant liniment or to apply a capsicum and belladonna plaster. Inhaling steam carrying camphor also is beneficial.—(*Exchange.*)

NOTES & COMMENT

Royal Personages and Quacks.—Jefferson points out that royalties have long had a predilection for quackery. Queen Anne's weak eyes, he remarks, caused her to pass from one empiric to another for the relief they promised to give and in some cases even persuaded her that they had given her. She had a passion for quack oculists. Happy was the advertising scoundrel who gained Her Majesty's favor with a new collyrium! For, of course, if the greatest personage in the land said that Professor Humbug was a wonderful man, a master of his art and inspired by Heaven to heal the sick, there was no appeal from so eminent an authority. How should an elderly lady with a crown on her head be mistaken? Do we not hear the same arguments every day in this enlightened generation when the new chiropodist or rubber or inventor of a specific for consumption points to the social distinctions of the dupes as conclusive evidence that he is neither supported by vulgar ignorance nor afraid to meet the most searching scrutiny of the educated? Queen Anne was so charmed with two of the many knaves who by turns enjoyed her countenance that she had them sworn in as her oculists in ordinary; one of them she was so silly as to knight. William Reade, originally a botching tailor and to the last a very ignorant man (as his "Short and Exact Account of All the Diseases Incident to the Eyes" attests), rose to knighthood and the most lucrative fashionable physician's practice of his period. It was true that Sir William Reade was unable to read the book which he had written through an amanuensis, but many wealthy people who listened to his sonorous voice behind his lace ruffles and gold-headed cane and saw his coach drawn along by superb horses thought him equal in every respect to Pope and Swift. Anne's other sworn oculist was Roger Grant, a prodigiously vain cobbler who had his likeness engraved in copper. He was in the habit of getting hold of a poor person of imperfect vision, whom, after treating with medicines and half crowns, he induced to sign a testimonial to the effect that he

had been born stone blind and had never enjoyed any sight until Providence led him to Dr. Grant, who cured him in little more than a month. Through the usual clergyman's proclivity for quacks many signed the certificates as witnesses. If they did not "Dr." Grant himself saved them the trouble by affixing their names.

—(*Medical News.*)

Medical Legislation Reform.—Dr. H. M. Shallenberg, of Rochester, evidently shares the general impression that there is room for improvement along the line of legislation affecting the practice of medicine. In the *Pennsylvania Medical Journal* he says: A spirit of commercialism to-day in a majority of our medical colleges is paying a premium for a low standard of education, and reforms must come through means that will strike directly at the heart of this commercialism. Neither the study nor the practice of medicine is a commercial undertaking, and the conduct of the medical schools should be on a plane high enough to eliminate any suggestion of this commercial factor. In a few of the colleges high standards are required and maintained, but the proportion of these is to the whole number very small. Twenty-five years ago the country was filled with illiterate and incompetent practitioners, many of whom had never been within the walls of a medical school. The conditions were such as to require the enactment of protective laws, at first difficult of fulfillment owing to the ignorance of the laity as to the existing conditions. While a battle for higher standards in efficiency has been waged steadily, resulting a few years ago in the organization of State Boards of Medical Examiners, yet our medical colleges, with few exceptions, have continued to admit and teach students from the same low standards and by the same old methods. These same colleges, to satisfy the outcries of the profession for a more careful selection of students, have made a pretense in their annual announcements of preliminary educational requirements and the exaction of entrance examinations, while they have sought to enroll students by every means and have had as their only requirements the payment for the professor's ticket.

We have in the United States 156 medical colleges. In one city sixteen medi-

cal schools. About 6,000 young men are graduated each year. One-half of this number of graduates is in excess of the yearly need of one physician to 800 inhabitants, with allowance made for increase?

Criminal Abortion.—Dr. E. Stuver, writing in the *Medical News*, has some good things to say concerning this not infrequently committed crime. For example:

Every medical society in the land should set the seal of its emphatic condemnation on this offense, and should ignominiously expel any physician guilty either of its perpetration or of connivance thereto. Every physician should be given to understand that he dare not produce abortions upon prostitutes, or upon those who, for convenience or social indulgences, would violate Nature's laws, and at the same time retain his position as an honorable professional man or woman.

Nor is it sufficient that the physician merely occupy the negative position of refusing to perform such operation. He should embrace every fitting opportunity to impress its importance upon others. Legislators and judges should be taught the biological facts on which life rests, so that laws may be framed and decisions rendered in accordance with the necessities of the case. Ministers should, likewise, be instructed and aroused to an appreciation of the enormity of the crime and its devastating consequences. Their calling affords them many opportunities to point out vividly the physical dangers and moral turpitude of the offense. They are in a position to do much good, and their sympathy and co-operation should be secured in overcoming the evil. Teachers in our higher institutions of learning can, by instilling correct moral principles into the minds of students, do much toward preventing this baleful practice.

Finally, laws, with severe penalties for their contravention, should be enacted prohibiting newspapers from advertising and druggists from selling abortifacient remedies, except on prescription of properly-licensed physicians. Such laws, if properly enacted and rigidly enforced, would, I believe, prevent a great many of these crimes, and have a very salutary effect in awakening the people to the enormity of this offense.

Circumcision.—Dr. Graham, in the *Georgia Journal of Medicine and Surgery*, takes a strong stand against this operation. He says:

"Who ever heard of any one dying from not being circumcised? This simple operation, due to infection, and death from anaesthesia has claimed its many victims, that if left uncircumcised, would have struggled through life with a natural prepuce and perhaps have become great or useful men, even with this great *draw-back*. Until the boy comes to or passes the age of puberty his foreskin should not be ruptured, for erections before the development of the glans penis are not sufficient to break through the prepuce. Men require virginity in women at marriage, but do in no manner account for their own chastity and virtue; possibly may not the prepuce be to the male what the hymen is to the female, for when either are ruptured completely what are we led to suppose? The less the early youth has to do with his penis, the better he is. I don't think circumcision, by allowing the sensitive glans to be touched and irritated by clothing or other things, is any addition in particular to the boy's tranquil peace of mind. Some might say if smegma collects it's worse—but I simply don't believe it. I think it is time to call a halt on this promiscuous circumcision habit of some physicians, for where it is not clearly indicated, and it very seldom is, it does no proven good, it is cruelty when done without some form of anaesthesia, and then it is dangerous. I would like to see some one prove (except in rare cases) the good derived from promiscuous circumcision. In my opinion, those who do this should have a call from the local society for the Prevention of Cruelty to Animals. Some physicians do it because they think it's good to do; some others, because they are taught so, and some others, because they don't know any better. According to even some religious beliefs if a child goes forty days without circumcision, has not forty days of resistance been proven? If he reaches thirteen years, has he not passed and resisted everything of an infectious nature by continuing to live? If he lives to thirteen and is well, if let alone, according to all common sense, not to mention mathematics, the chances would be in his favor for healthy adult life."

"Three things only confront his long prepuce, and from that cause further years of health, borrowed, begged or stolen, gonococci, syphilitic or chancroidal, chancroidal infection, and neither one of these diseases has any respect for an absent prepuce; the shorter the prepuce the easier the infection. For if it were all unbroken skin—no mucous membrane—infestation would not occur. The unbroken cuticle of the examining finger of the physician protects him from infection. Think over that. Who would not prefer a balanitis, with its uncertain pathology and a natural foreskin, than a deep-seated urethritis or gonorrhoeal rheumatism?—not to mention the fatal tune at any time liable to be played in discordant music on the very heart strings."

The Trouble at Mt. Clemens.—The following card, which is being displayed in the prominent public places of the Bath Town, including the hotel lobbies and the street corners, shows the bitterness which exists in the fight over "runners," now waging among the physicians:

Publicity, the best method for remedying existing evils.

CAUTION.

Upon your arrival at Mt. Clemens, beware of any person, especially runners, operating on the cars, public square, railroad stations, hotels and boarding houses, attempting to advise you to consult other physicians than the one to whom you were recommended. It is not friendship which inspires them to mislead you. They are well paid for their dishonesty by some physicians not members of our medical association. No compensation will be paid by any of the undersigned physicians of Mt. Clemens to secure patronage:

Dr. Henry Berry, Dr. W. F. Berry, Dr. Jos. C. Croman, Dr. Emma A. Decker, Dr. T. B. Englehart, Dr. Richard Leuschner, Dr. W. T. Lungershausen, Dr. J. F. O'Keefe, Dr. A. A. Parisot, Dr. Harry F. Taylor, Dr. E. G. Folsom, Dr. V. Gardner, Dr. A. Hayward, Dr. P. A. Knight, Dr. Paul Leuschner, Dr. Theo. H. Smith, Dr. J. H. Sullivan, Dr. A. J. Warren, Dr. Jas. G. White.

Labeled Bottles and Babies.—"I was called," said a physician, "to attend triplets. The three youngsters, a few weeks

old, lay side by side in a crib, and it was a physical impossibility to tell one from the other. Each had a different ailment. The mother knew that one had a cough, but did not know which it was. Mother and doctor waited for a cough before deciding to which one of the trio it belonged.

"A different medicine was prescribed for each, and the anxious mother was perplexed to know how she should avoid giving the wrong medicine to the wrong child. The doctor came to the rescue by placing a piece of red flannel around the neck of one bottle and a strip of similar material around the arm of the child to whom it was to be given. White linen and a piece of green cloth were used respectively for the other two."—(*Philadelphia Times.*)

Clean Hands.—Dr. W. Gyll, in a recent address before a southern medical association is quoted in the *Charlotte Medical Journal* as saying: "I do not believe there are five men in front of me who would wash their hands to suit me. If you want to know when your hands are washed clean, try a plan which I use sometimes with my nurses, when they get a little "smart" and think they are perfect: I give them some iodoform vaseline to smear around their hands and then tell them to wash their hands for 10 to 15 minutes and then hand them a silver dollar 15 minutes afterward. If they can handle it without the odor of iodoform remaining, then I know their hands are clean. That is a test you can apply. It is not a simple or easy thing to wash the hands clean. Look at men to-day using gloves, numbing their sense of touch, and the inability to do artistic work. The man who claims that he can do as good work with gloves on has probably never reached the highest standard in developing his sense of touch."

Hospital Service Obligatory.—A year's service in a hospital has been obligatory to the medical graduate in Budapest; four months are to be given to the medical wards, two to the surgical and two to the gynecological; the remaining four months are to be passed in any department selected by the interne.—(*Exchange.*)

Potassium Permanganate in Opium Poisoning.—Calderon cites a case of opium poisoning which he treated with complete success by the use of potassium permanganate. He first used the stomach pump, then washed out the stomach with a 1 to 5,000 solution of the permanganate until the water came out rose-colored, using in all about a gallon of the solution. Next he injected hypodermically a full syringe of the 1 to 20 solution in water. After this he left 150 grams of a 1% solution to be taken in tablespoon doses every hour. The permanganate oxydizes the morphine contained in the stomach, causing it to become inert. The resulting mangandioxide is insoluble and therefore harmless. If the amount of morphine taken is known, the proportion of five parts permanganate should be given as the antidote; if, however, the amount of morphine is unknown, 1 tablespoonful of a 1% solution should be given every hour. In laudanum poisoning, 0.4 grams of permanganate per os neutralizes 30 grams of laudanum.—(*Pacific Medical Journal.*)

Cinnamon Water as an Antiseptic.—Oil of cinnamon in aqueous solution acts like magic as a local disinfectant. In a recent wound of any kind, after stitching or whatever may be needed, keep a compress wet with cinnamon water constantly applied until healing is complete, which usually takes place without suppuration. It takes the place of corrosive sublimate, and everything else. It is pleasant to use, cleanly, non-toxic, safe, and cheap. As a douche after parturition it is ideal, not often requiring to be used more than two or three times. I add three or four drops of the oil of cinnamon to two quarts of warm water, and direct it to be used as often as there is any scent to the lochia. In nasal catarrh it serves well, and in fact wherever a germicide and disinfectant is wanted.—(*Medical World.*)

Ferum Iodatum.—This is indispensable in complicated scrofula where chlorosis rachitis and syphilis combine with the scrofulous processes. It removes speedily impetigo of the cheek and eczematous exanthemata of the face and whole body.—(*Medical Magazine.*)

After-Care in Perforation Operations.—Gilford suggests in the *British Medical Journal* that water may be given 4 hours after operation. After 24 hours grape sugar in the form of raisin tea or a decoction of malt may be administered in small doses. Milk contains proteids which undergo digestion in the stomach and should be avoided; beef tea and the various beef extracts stimulate the secretion of gastric juice and are not to be employed. After from one to three days cream and water (1 part of the former to 12 parts of the latter) may be added to the grape sugar. At the end of a week solid food may be commenced, but for two weeks longer it is better to select food which is digested mainly in the intestine. The patient should lie on the right side with the shoulders slightly raised in order to facilitate the egress of fluids from the stomach; if the ulcer be low down on the anterior wall of the stomach, the supine position is the best attitude. The bowels should be moved by the use of enemata if possible; calomel and salts being withheld unless ileus is threatened and rectal injections have proven ineffectual.

Age of First Menstruation.—In the *New York Medical Journal* Dr. Geo. J. Engelmann gives some interesting data along this line. He finds that American women as to the time of functional development are more precocious than are the women of other continents in the same zone, and that they are more precocious than the people from whom they are descended. On this continent the average age is 14, while in Europe it is 15.5. Climate does not influence the time of pubertal development in the temperate regions of this continent. Here, racial characteristics as to the time of development rapidly fade away. Girls of the working classes develop sooner than do girls of the wealthy classes. In this country mentality, surroundings, education and nerve stimulation are the factors that determine the time of development.

The Three Fates.—“Practically the world over, three constant and terrible diseases cause the destruction of countless human lives. These three diseases are leprosy, tuberculosis and syphilis.”—(*Clinical Review*.)

Sometimes They May Talk.—An important ruling made by the court recently was that when a person who is suing for damages testifies in court that a doctor examined him and found him injured, the doctor is a competent witness in the case, and must tell what he found.

This ruling was made in the case of W. R. Highfall against the Missouri Pacific Railway company. Highfall was a passenger on a train, and claimed to have had his hip dislocated by a blow of a swinging car door. His case was tried in the circuit court of the county, and a jury gave him \$500 damages. This verdict the court of appeals reversed, and remanded the case for a new trial because when Dr. Wood was put on the stand in the trial of the case, and was asked what he found to be the matter with Mr. Highfall, the lawyers for the latter objected to the question, and the court sustained the objection holding that a physician cannot be forced to reveal the secrets of the sick room. But the court of appeals holds that when a witness seeks to fortify his case by testifying that a doctor found him injured, he waives the secrecy imposed by the statute, and the doctor may be put upon the stand to testify.—(*Kansas City Star*.)

Albargin.—Antiseptic, germicide, and antigonorrhœic; contains 15 per cent of silver, said to be twice as much as is contained in any other similar substance. Albargin is not precipitated from its solutions by either hydrochloric acid or sodium chloride solution; nor does it coagulate albumen. Used by injection in gonorrhœa in solutions ranging from one-tenth of one per cent. to one per cent. in strength. Aqueous solutions remain permanent if not exposed to the direct rays of light.—(*Bulletin of Pharmacy*).

Cacodylate of Sodium in Carcinoma.—Payne, in *The Lancet*, reports two cases of carcinoma—one of the uterus, the other of the tongue—treated with cacodylate of sodium with marked improvement in both cases. The drug was given hypodermically, in doses gradually increased to a maximum of 7.5 centigrams once daily. It is believed that arsenic has a specific action on epithelial cells—at first beneficial; ultimately destructive—and

that, coming in contact with the epithelial cells of a person suffering with carcinoma, the deleterious action of the drug is resisted more by the normal cells than by pathologic cancerous cells. The latter are overcome and destroyed, hence the cure.

Alcohol as a Disinfectant.—Alcohol in proper dilution is a very efficient disinfectant, its disinfecting properties depending partly upon its desiccating action and partly upon a distinct toxic influence upon the bacteria. In efficiency it may be classed between corrosive sublimate and carbolic acid. The best solution for the disinfection of the hands is slightly acidulated 80 per cent. alcohol.—(*Medical Times*.)

Gastric Affections.—Creosote, although rarely employed in diseases of the digestive tract, save to check vomiting, is often serviceable in infantile gastro-enteritis and various dyspeptic conditions. Give the beech creosote, three drops, dissolved in fifteen minims of alcohol, to which is subsequently added 1500 grains of mucilage. For children use a teaspoonful, for adults a tablespoonful, immediately before each meal.—(*La Semaine Médicale*.)

Elecampane.—Inula has been a domestic remedy in bronchial affections for fifty years or more, but has not been in great favor with physicians generally. Recently, however, some scientific investigations have shown it to possess therapeutic properties of some value. It is even hoped that the property possessed by one of its active principles, helenin, of inhibiting the growth of tubercle bacilli, may render it useful in the treatment of tuberculosis.—(*St. Louis Clinique*.)

Nitric Acid for the Voice.—Dr. Bartholow says that failure of the voice from fatigue or simple mucous laryngitis is often wonderfully relieved by a small dose of nitric acid every two hours, well diluted.—(*N. W. Lancet*.)

Tonsilitis.—Tonsillar sore throat is often much benefited by calomel, in one-fourth to one-half grain doses every two hours.—(*Medical Monthly*.)

"Black Eye" Cures.—Drs. C. A. Wood and T. A. Woodruff, writing in the *Medical Standard*, say that an ordinary "black eye," if seen at once, is best treated by cold applications (cloth wet with ice-water) or by an evaporating lotion such as the following:

℞	Liq. plumbi subacetatis.....	3j
	Alcohol	3j
	Aq. dest. q.s. ad.....	Oj

When a definite blood-clot has formed, the skin should be incised or two or three leeches applied to the orbital margin. After two days the only thing to do is to apply flesh-colored paint to hide the discoloration.

Globus Hystericus, Causes of.—In the contraction of the œsophagus that is sometimes seen in hysterical women, there is sometimes a source of local irritation which appears to favor the occurrence of this condition. Ears plugged with wax, large tonsils and adenoids, nasal growths, may all be responsible and should be looked for. The mental effect of slight surgical procedures, when really indicated, is a great advantage.—(*International Journal of Surgery*.)

Acne and X-Rays.—Ulmann, in the *Wiener Klinische Wochenschrift*, reports a case of severe acne of the back in a patient aged sixteen, treated by the X-rays. Fifty exposures of half an hour were given. After fifteen sittings the acne spots swelled, and there was diffuse erythema of the skin. Afterwards the acne spots shrunk, while the skin over them exfoliated.

Eczema of Palm.—This as a rule is due to occupation causing habitual immersion of the hands in water. Salicylic acid, ten to twenty grains to one-half ounce of ointment base, is the remedy *par excellence*. The hands should never be washed with water, but when it is desired to remove the ointment it should be done by means of olive oil or liquid petrolatum. Salicylic acid plaster in strengths of five to ten or twenty per cent., as required, will overcome the objection to the use of ointment in this region.—(*Philadelphia Polyclinic*.)

BOOK REVIEWS

Human Anatomy. A Complete Systematic Treatise by Various Authors, including a Special Section on Surgical and Typographical Anatomy. Edited by Henry Morris, M. A., and M. D., London. Senior Surgeon to the Middlesex Hospital; Examiner in Surgery in the University of London; Member of the Council, and Chairman of the Court of Examiners of the Royal College of Surgeons of England; Honorary Member of the Medical Society of the County of New York. pp. xxix—1274. Illustrated with 790 woodcuts, over 200 in colors. Second Edition. Size, 6½ x 10½. Cloth, \$6.00. Philadelphia, Pa. P. Blakiston's Son & Co., publishers, 1012 Walnut St.

Dr. Morris has aimed to make this work complete as "a systematic description of every part and organ of the human body as it is studied in the dissecting-room" and to do this he has embodied in this second edition the suggestions of a number of his friends who have read the first edition with care. The original authors are all represented except two; Dr. Arthur Robinson has revised the section on the Nervous System instead of Dr. H. St. John Brooks; and those also which were written by the late Arthur Hensman. In a number of cases the original illustrations have been redrawn and in their present shape they certainly contribute largely not only to the appearance of the book but to its value to the student as well. Five years count for much even in the writing of a subject so well-defined as that of anatomy; and the researches and discoveries of half a decade are included in the book.

The several sections of the work are as follows: Section I, Osteology, by J. Bland Sutton; Section II, The Articula-

tions, by Henry Morris; Section III, The Muscles, by J. N. C. Davies-Colley; Section IV, Arteries, Veins and Lymphatics, by W. J. Walsham; Section V, The Nervous System, by H. St. John Brooks, revised for the second edition by Arthur Robinson, M. D.; Section VI, Organs of Special Sense—Part I, The Eye, by R. Marcus Gunn; Part II, The Ear, The Tongue, The Nose, by Arthur Hensman, revised for the second edition by Arthur Robinson, M. D.; Section VII, The Thorax, including the Organs of Voice, Respiration and Circulation, by Arthur Hensman, revised for the second edition by Arthur Robinson, M. D.; Section VIII, The Organs of Digestion—Part I, The Organs above the Diaphragm, by Arthur Hensman, revised for the second edition by Arthur Robinson, M. D.; Part II, The Abdominal Viscera, by Frederick Treves; Section IX, The Urinary and Reproductive Organs, by William Anderson; The Skin, by William Anderson; Section X, Surgical and Topographical Anatomy, by W. H. A. Jacobson; Section XI, Vestigial and Abnormal Structures, by Arthur Robinson, M. D..

A complete index renders any part of the work readily accessible and marginal indices to the sections are a great convenience. The book is well published throughout.

A Practical Treatise on Materia Medica and Therapeutics, with Especial Reference to the Clinical Application of Drugs. By John V. Shoemaker, M. D., LL. D., Professor of Materia Medica, Pharmacology, Therapeutics, and Clinical Medicine, and Clinical Professor of Diseases of the Skin in the Medico-Chirurgical College of Philadelphia; Physician to the Medico-Chirurgical Hospital; Member of the American Medical Association, of the Pennsylvania and Minnesota State Medical Societies, the American Academy of Medicine, the British Medical

Association; Fellow of the Medical Society of London, etc., etc. Fifth edition, Thoroughly revised. Pages viii-1143. Size, 9 $\frac{1}{4}$ x 6 $\frac{1}{4}$ inches. Extra cloth, \$5.00 net; Sheep, \$5.75 net, delivered. Philadelphia, Pa. F. A. Davis Co., publishers, 1914-1916 Cherry St. Exhaustiveness is one of the chief characteristics of this work of a recognized authority on *Materia Medica*. Dr. Shoemaker's large experience as a lecturer and teacher, combined with his wide scientific knowledge render him capable of fully treating of even so large a subject as that of *materia medica* and therapeutics with thoroughness. Both the U. S. P. preparations and those of the British Pharmacopeia are treated of and they are designated as official. But the remedies included in these do not constitute the whole of number mentioned in this work, as Shoemaker has taken pains to point out many so-called unofficial preparations which he says are to be regarded with favor for certain uses.

In each case, the Latin name of the drug is given, with its dosage, preparations, pharmacology and therapy following. Interesting bits of history of cases in which the drug has been used with special effect are recounted, and in a manner that impresses them on the mind of the reader with considerable force. Shoemaker's knowledge of his subject is so broad and his reading has been so exhaustive that he has been able, in conjunction with the more dry and formal description of the properties and action of drugs to throw out very useful hints of their results in extraordinary cases. Careful editing has brought the subject-matter up to date and the list of drugs considered includes the new discoveries.

Part II of the work is devoted to non-pharmacal remedies such as electro-therapeutics, massage, diet and so on. Only 71 pages are devoted to electro-

therapeutics, but in this small space is contained much of value on the use of electricity as a remedial agent, together with several illustrations of apparatus. A number of formulæ for hypodermic use and several recipes for articles of sick-room diet conclude the book. A well-arranged general index makes reference easy and typographically the book is up to the standard of its publishers.

An International System of Electro-Therapeutics. For Students, General Practitioners, and Specialists. By numerous associated authors. Edited by Horatio R. Bigelow, M. D., Permanent Member of the American Medical Association; Fellow of the British Gynæcological Society and of the American Electro-Therapeutic Association; Member of the Philadelphia Obstetrical Society, of the Société Française d' Electro-Thérapie, and of the Anthropological and Biological Societies of Washington, D. C.; Author of "Gynæcological Electro-Therapeutics" and "Familiar Talks on Electricity and Batteries." Second Edition. Revised and brought up to date, with several New Departments, embodying the Most Recent Developments of the Science. Edited by G. Betton Massey, M. D., Ex-President and Fellow of the American Electro-Therapeutic Association; Member of the American Medical Association; Author of "Conservative Gynæcology and Electro-Therapeutics," etc. Thoroughly Illustrated. Royal Octavo. Pages x-1147. Prices net, Delivered; Extra Cloth, \$6.00; Sheep, \$7.00; Half-Russia, \$7.50. Philadelphia, Pa. F. A. Davis Co., publishers; 1914-1916 Cherry St.

Massey has done some admirable work in this second edition of the work. He has maintained it as a text-book for the development of operative technique in the use of electricity as a remedial agent,

besides thoroughly revising, rearranging and on the whole improving the book. Owing to the new and improved means of making use of electrical energy from a source other than the chemical batteries, the section on the Galvanic Current has been rewritten in this edition. The article on Electro-Diagnosis has been considerably added to and changed, following the developments and discoveries made in this branch of medical electrical work. Entirely new articles on the Treatment of Aneurism by Coiled Wire and the Galvanic Current, the Roentgen Rays and the Cataphoric Treatment of Cancer, find a place in this edition. There are thirty-eight authors represented in the work, among them, besides Dr. Massey, being: William J. Herdman, Albert P. Brubaker, A. Tripier, of Paris, France; Augustin H. Goelet, Franklin H. Martin, J. H. Kellogg, William J. Morton and Robert Newman.

There are seven sections of the work, as follows: Section A, Introductory; Section B, Electro-Physics and Electro-Physiology; Section C, Gynaecology and Obstetrics; Section D, Diseases of the Nervous System; Section E, Disorders of the Abdominal and Thoracic Viscera; Section F, Diseases of Childhood; Section G, Electro-Surgery. The entire text is well illustrated, among designs being some engravings illustrative of electricity and its uses a century or more ago. Comprehensive and authentic, this work is of undoubted value to the modern practitioner of medicine.

Genito-Urinary Diseases and Syphilis. For Students and Practitioners. By Henry H. Morton, M. D., Clinical Professor of Genito-Urinary Diseases in the Long Island College Hospital; Genito-Urinary Surgeon to the Long Island College and Kings County Hospitals and the Polhemus Memorial Clinic, etc. Illustrated with half-tones and full-page color plates. Pages

xii-363. Size, 6 x 9½. Cloth, \$3.00, not delivered. Philadelphia, Pa. F. A. Davis Company, publishers, 1914-1916 Cherry St.

Dr. Morton has naturally had much experience in the treatment of diseases of the class specified in the title, and his work therefore has the strength of authority. In the last decade great strides have been made in Genito-Urinary surgery and the most important discoveries and operations are fully treated in this book of Morton's. The cystoscope, the subject of renal surgery, the technique of lithotomy, prostatectomy and other relatively new means for relieving suffering in genito-urinary troubles are among the important subjects treated. With both the new and the more familiar phases of his subject the author has endeavored to state his ideas in such a manner as to have them of practical value to the practitioner; and in this he has succeeded. There are twenty-four chapters in the volume, each one dealing with a specific division of maladies met with in practice, while the text is embellished with ninety-six illustrations, including many well-executed half-tones.

There is a valuable section on syphilis, setting forth the diagnosis and treatment of syphilis and its lesions very fully; and the subject of impotence and sterility is considered at some length. A convenient list of genito-urinary instruments required for office use is published and the whole book is carefully edited.

Sexual Hygiene. Compiled by the editorial staff of the Alkaloidal Clinic. pp. 296. Size, 4½ x 7 inches. Cloth. The Clinic Publishing Co., Chicago.

The subject matter of this small book is made up largely of the answers of correspondents to an invitation to discuss the question of sexual hygiene, the editors of the Clinic feeling that it was an important one and that, owing to false modesty, it had never been carefully treated

of in medical text-books. There is also included the report of a meeting of the Physicians' Club of Chicago, held in November, 1898, which was originally published in the same magazine. Plain language without offense it the rule for the compilation and there can be little doubt in the mind of the careful and thoughtful reader that much of certain and practical knowledge is contained in the reports and comments of experienced practitioners. The book is exclusively intended for physicians, on the ground that they alone are properly capable of making good and rational use of the information contained in the work. Certainly the ground is well and carefully covered by the text and much information of value is given.

A Brief Manual of Prescription-Writing in Latin or English for the use of Physicians, Pharmacists, and Medical and Pharmacal Students. By M. L. Neff, A. M., M. D., Cedar Rapids, Ia. pp. v-136. Extra cloth, 75 cents net, delivered. Philadelphia, Pa. F. A. Davis Co., publishers, 1914-1916 Cherry St.

This book is the result of a wish on the part of Dr. Neff to place before a larger public his experiences in teaching medical students something of the art of prescription-writing, and this he has done in a pleasing manner. Some question may arise as to the necessity of writing a prescription in Latin when it is already in English, with a large possibility of error on the part of a young doctor who is not familiar with the ancient tongue; but for those who for any reason desire to know something of the more sonorous and imposing form of the prescription, the book is of unquestioned value. Nowadays Latin is not considered so necessary a part of a physician's equipment as it was a quarter of a century ago or less, but strangely enough there is always a desire on the part of the practitioner to write his prescriptions in Latin. And

Dr. Neff's book will prove of great value to him in reaching this desire.

A Pocket Encyclopedia of Medicine and Surgery. Based upon "A Cyclopedic of Practical Medicine and Surgery." Edited by George M. Gould, A. M., M. D., Author of "Gould's Medical Dictionaries" and Editor of "American Medicine"; and Walter L. Pyle, A. M., M. D., Assistant Surgeon Willis Eye Hospital, Philadelphia; former Editor of "International Medical Magazine," etc., etc. Flexible leather, pp. 600. With numerous illustrations, diagrams, etc. Size, $3\frac{1}{2} \times 6$. Philadelphia, Pa. P. Blakiston's Son & Co., publishers, 1012 Walnut St. 1902.

In small and convenient size, with the text clearly printed and the subject-matter condensed, this concentrated form of the same author's larger work on medicine and surgery commends itself to the profession for its handiness. The text is well arranged and while the style of writing is of necessity not discursive, yet the definitions are well written and sufficient detail is given to general subjects to make them of value to the practitioner and layman alike. Modern medical nomenclature and knowledge are contained in the 1902 edition, which has been brought down to the day. The chief value of a work of this nature must be its accuracy, and for this the reputation of the editors is a sufficient guarantee; and the subject matter must be thoroughly modern to the advanced man of medicine. And this state is brought about by careful revision and the addition of the later words. The chemical composition of drugs is given and with it their properties and uses. Much positive advice is given concerning medication and operation. The edition is well dressed by the publisher.

Manual of Childbed Nursing with Notes on Infant Feeding. By Charles Jewett, A. M., M. D., Sc. D. Professor of Ob-

stetrics and Diseases of Women in the Long Island College Hospital. Fifth edition, revised and enlarged. Pages, 80. Size, 4 $\frac{3}{4}$ x 7 $\frac{1}{2}$. Price, 80 cents. New York. E. B. Treat & Co., Publishers, 241-243 W. 23rd St.

From a small manual prepared for his nurses at the hospital Dr. Jewett has prepared the present book, designed to keep some important facts fresh in the minds of professional nurses and to serve in some sort at least as a guide to the expectant mother. Short words and few, small paragraphs and general conciseness tend to fix the material firmly in mind. Lists of necessities for the mother and child are given and simple directions for care of both after delivery are furnished. The little book is a practical one.

Gould's Pocket Pronouncing Medical Dictionary, with 30,000 words used in medicine and the collateral sciences pronounced and defined. By George M. Gould, A. M., M. D. Uniform with Gould and Pyle's Pocket Encyclopedia. pp. 837. With tables of clinical eponymic terms and of the arteries, muscles, nerves, etc. Dose-lists of drugs and their preparations in the English and the metric system. New Fourth Edition. Philadelphia, Pa. P. Blakiston's Son & Co., publishers, 1012 Walnut St. 1902.

The fact that Gould's dictionaries have reached the 100,000 mark in circulation speaks well for their popularity with the profession and the present form of the pocket dictionary will in all probability do something toward increasing the favor in which they are held. In the author's preface he calls attention to a list of new eponymic clinical terms which he has compiled; and the dose tables have been somewhat enlarged. Occasion has been taken to eradicate some inaccuracies in the body of the book, which is now a credit to both author and publisher, typographically and otherwise.

Johnson's First Aid Manual. Suggestions for Aid to the Injured in Accidents and Emergencies. pp. 113. Illustrated. Edited by Fred B. Kilmer. Cloth, 50 cents. New Brunswick, N. J. Johnson & Johnson, publishers.

Numerous illustrations and diagrams, together with text in short and easily understood words, render this little book useful even to those who have little or no knowledge of medicine or surgery. There are many valuable "Don'ts" and there are many useful hints and suggestions as to what to do. Emergency diagrams will perhaps remain in the mind and prove of benefit to the practitioner who is suddenly called upon to treat a large number of people as the result of a wreck or other accident. Surgical cleanliness is defined and simple directions for securing it as nearly as possible are given. It is a useful little work and one that may be read with interest and with profit.

In Germany, Too.—According to recent Berlin police reports nowhere in the world have quacks and their nostrums more support than in Germany. While the city population of Germany has increased 58 per cent. and the regular medical men 76 per cent., the quacks have increased 1,537 per cent. Of 123 men who were found to practice medicine in Berlin without a license 30 had been domestics, 45 artisans, and 16 clerks. Only 24 had even a fair education. The women quacks were more numerous than men quacks. Of 130 found practicing without a license only one was even fairly well educated. Sixty had been servant girls, 24 dressmakers, 10 charwomen and five nurses. The three men who made the largest incomes had been clerks; of the three most prosperous women two had been washerwomen and one a milliner. Thirty per cent. of the men and 15 per cent. of the women had been in jail.—(*Medical News.*)

A Useful Hint.—Fine salt sprinkled on the mantles of gasoline lamps when they begin to blacken will immediately cause the deposited carbon to burn off without injuring the mantles in the least.—(*Bulletin of Pharmacy*).

DETROIT MEDICAL JOURNAL

ORIGINAL ARTICLES

INTESTINAL OBSTRUCTION.*

BY LOUIS J. HIRSCHMAN, M. D.

When first requested to prepare a paper on a surgical subject to be read before the Wayne County Medical Society, I determined to write one, which would be of interest not only to the surgeon, but particularly so to the general practitioner of medicine. I have, many times before, heard papers on special subjects started with a similar declaration, and then, without the slightest warning the author has plunged into a long-winded and extremely technical discussion of some intricate procedure of interest only to himself and those who practice his peculiar branch of the profession of medicine. However, that is not my intention to-night, in fact, quite the contrary. Such a paper would undoubtedly be of absorbing interest to an organization composed exclusively of specialists, but when a member of the Wayne County or any other Medical society is honored by being requested to address the organ-

ization or to read an essay before its members, he should always bear in mind the fact that he is addressing the general practitioner. The essayist is not asked to appear before a medical society for the purpose of reading long statistical tables, or of quoting voluminous opinions and theories of medical authors. Every toiler in any vocation, and particularly our profession, is continually adding to his store of knowledge, through the school of daily experience, and it is his duty to his brother practitioners to give them the benefit of any knowledge, however small, of which he may have become possessed.

This does not mean, however, that one must come here and burden the society with a lot of reports of surgical operations successfully performed by himself, gatherer together under the guise of a scientific treatise.

I believe that there are three purposes that the reading of a paper before a society of this kind can serve. First,—the presentation of some new discovery or observation of value to the profession; second,—the offering of an improvement on old methods and advances on old ideas

*Read before the Wayne County Medical Society April 3, 1902.

and theories; and lastly,—to present a paper for the purpose of provoking a healthy discussion of some subject of keen interest to the profession at large. With the last reason in mind, and leaving all reports of cases to the discussion of the paper (which is their legitimate place), we may take up the subject in hand.

I intend to bear particularly upon the condition known as intestinal obstruction as it comes in general practice, and before operative interference is instituted. For I believe that a proper conception and understanding of the importance of an accurate diagnosis at the *proper* time, is more essential than an intimate knowledge of the details of the operative measures devised for the relief of the obstructed bowel. It is upon the skill of the surgeon that we must depend for operative relief; but, before we can avail ourselves of his aid, we must have assured ourselves that we have a condition requiring surgical treatment.

It is the general practitioner, who in his capacity of family medical adviser, is first called upon to see the patient, and it is upon his diagnosis and prompt action, that the life of his patient depends. If there is one point that I would emphasize at this juncture, it is: that it is not so important to make a diagnosis, as it is to make an *early* diagnosis of obstruction of the bowel. With this fact always standing out clearly in our minds, we may proceed to a further discussion of the subject.

In the first place, let us define obstruction of the bowel, for it is essential that we have a clear understanding of what obstruction consists before we can intelligently discuss it. To my mind, it is best defined as follows: Intestinal obstruction is a condition in which there is a partial or complete interruption of the fecal current, caused by mechanical obstruction, loss of motor power, or pathological change of the intestinal canal.

Obstruction caused by mechanical means or through loss of motor power is soon followed by pathological changes of a very decided nature. The intestinal canal may be occluded, either wholly or partially, by strangulation, intusseption, volvulus, tumors, strictures, foreign bodies, which have been swallowed, fecal concretions, gall-stones, masses of intestinal worms, etc.; as well as by pressure and adhesion from intra-peritoneal tumors, and from paralysis of the muscular coats of the bowel. One of the most common causes of obstruction is strangulation, and the most frequent condition favoring the occurrence of strangulation is the existence of a hernia. All forms of intestinal hernia are liable to become strangulated, and the strangulation produce obstruction. A loop of bowel may be caught in an opening in the mesentery, peritoneum, or omentum; or it may become constricted by a band of organized lymph from a previous attack of peritonitis, or intra-abdominal operation. The appendix veriformis or Meckel's Diverticulum may either themselves become strangulated, or may by encircling a part of the bowel become a factor in causing a constriction.

Intusseption or invagination is the condition in which one portion of the bowel becomes "telescoped" into another. This form of obstruction may occur in any portion of the large or small intestine, but most commonly is met with at the ileo-caecal juncture. It occurs in children in the vast majority of cases. Intusseption is almost always directed towards the anus, and is caused most commonly by irregular peristaltic action.

Volvulus is a twisting, knotting, or kinking of the bowel which has a short mesentery. The small intestine and the sigmoid flexure are the commoner seats of volvulus. The blood supply of the gut may become shut off in the twisted condition and gangrene result.

The tumors which are most likely to cause acute obstruction, are polyps, which may of their own bulk occlude the lumen of the bowel, or by dragging the bowel downward, cause an intussusception. Cancerous growths which in their development, cause chronic obstruction; finally, completely fill in the lumen and cause an acute obstruction following a chronic.

Stricture or narrowing of the lumen of the bowel, may be either cicatricial, from the healing of old ulcerations; or the development of intra-mural hematocles, abscesses, or other inflammatory deposits.

Foreign bodies or substances, which have been swallowed, do occasionally cause obstruction. Forks, spoons, coins, masses of fruit or melon seeds, as well as large accumulations of insoluble drugs, such as salol, bismuth, magnesia, etc. Impacted fecal matter, gall-stones, and enteroliths which may form around gall-stones or other substances, are not infrequent obstructive agents. Gall-stones most often occlude at the narrowest portion of the small intestine, the ileo-cecal valve. Masses of round worms in children are also causes of acute intestinal obstruction.

Pressure from large fibroid uterine tumors, or large ovarian cysts, mesenteric enlargements, in fact any intra-peritoneal condition, which might cause great pressure upon the gut, would be likely to cause an obstruction.

Paralysis of either the large or the small bowel may be caused by trauma, by an attack of peritonitis or by embolism of one of the mesenteric arteries. It usually accompanies a strangulation. Any mechanical obstruction may, by causing over-distention of the bowel, cause a dynamic obstruction.

All intestinal obstructions are classed as acute or chronic, but it is not my intention to discuss chronic obstruction, inasmuch as there is very little difficulty for the physician as a general rule in

recognizing the condition in plenty of time for the application of the proper means for its relief. In the acute form, however, upon the prompt recognition of the trouble depends the life and safety of the patient. For this reason I wish to dwell more particularly upon the clinical aspect of acute intestinal obstruction.

Perhaps the best way of bringing the symptoms of the acute form of obstruction to your notice is by picturing a typical case, as we meet it in every day practice.

We are called hurriedly to see a patient who, we are informed, is suffering from a severe attack of "cramps." Upon our arrival, we find our patient lying on the bed with tense, drawn face, wearing an anxious expression that is almost in itself, diagnostic. He has his knees drawn up with his thighs flexed on his body, holding a hot-water bag tightly against his abdomen; the very picture of abject misery. We find, upon careful inquiry that several hours before, he was suddenly taken with acute, cramping, colicky, pains, which he refers to the region of the umbilicus, or to one side or the other, in the iliac region. We may also elicit the fact that his bowels have not moved as they were accustomed to do, and that he feels that he would be greatly relieved if he could pass some gas. Physical examination reveals a tympanitic abdomen, not very tense as yet; very little if any tenderness; no muscular rigidity; no increase of pain on pressure; and (if obstruction is caused by a foreign body, impacted feces, or an intussusception) a tumor on palpation. The pulse is at first slow and full, but, as our patient becomes weakened, it increases in rapidity and loses in volume and strength. His temperature is either normal or very nearly so. His tongue is dry; he complains of thirst; small sips of cold water or pieces of ice refresh him for the moment. Soon after these colicky, paroxysmal attacks

of pain, he is attacked with repeated and violent vomiting spells. This vomiting is more persistent, the nearer the occlusion is to the stomach; but between the emetic periods he is not particularly nauseated. The vomitus at first consists of the normal contents of the stomach. This is soon followed by bile and then by the contents of the intestine itself, finally becoming fecal.

The nearer the obstruction is to the colon, the more fecal its odor, color, and other characteristics. When our patient has reached the stage, where he is vomiting fecal matter when we first see him, the diagnosis is already established, and there is but one course of treatment open in the vast majority of cases. That is to prepare him at once for abdominal section and operate to relieve the obstruction.

Before taking up the differential diagnosis between intestinal obstruction and the other conditions for which it might be mistaken, it might be well to discuss the four cardinal symptoms of intestinal obstruction: absolute constipation, vomiting, colicky pain, and tympanites.

The constipation is absolute from the start. If we suspect obstruction at all, a cathartic is the last thing that we should have in mind; for anything which increases peristalsis, aggravates the pain and distress of the patient and weakens the bowel above the obstruction. High enemata, colon flushing and irrigations may bring away some fecal matter from below the obstruction and thereby raise false hopes in the mind of the practitioner, of a relief of the trouble; but too often the symptoms are only aggravated instead of alleviated.

One of the most distressing features of this disease is the persistent and uncontrollable vomiting, which is one of its earliest symptoms. It occurs soon and at short intervals when the obstruction is near the stomach, and is usually delayed and more irregular, if the obstruction is

near the ileo-cecal junction. Obstruction due to strangulation causes more violent and frequent emetic attacks than that caused by impacted feces or a foreign body. The vomiting attacks are sometimes so violent that the vomitus is not only expelled through the mouth, but also through the nose.

Pain, colicky or intermittent in character, is a constant symptom of ileus, and is caused by violent and irregular peristalsis. It is always more severe in obstruction of the small bowel, because the peristaltic action there is more active. The pain is usually referred to the umbilical region, regardless of the location of the obstruction. When the pain is located elsewhere, it points to the location, not of the obstruction, but of that portion of the bowel just above it. Between the paroxysms of pain, considerable relief is felt by the patient, which continues until the next attack sets in. Pressure does not increase the pain, in fact diffuse pressure somewhat relieves it.

Tympanites is a constant and annoying symptom, and is caused by a dilatation of the bowel above the obstruction. This dilatation is caused by the decomposition of the matter retained above the occluded area, and to some extent by a pathological hypertrophy of the muscular coats of the bowel. The lower the obstruction in the intestinal canal, the more marked the tympanites. This distention of the intestinal canal is distinguished from the presence of gas in the general peritoneal cavity by the location of liver dullness. In the condition under discussion, the liver dullness is displaced upward; while in peritonitis, it is impossible to elicit any dullness whatever.

In trying to distinguish between obstruction and peritonitis (either localized or diffused), we must remember that in peritonitis, we have decided tenderness upon palpation, and the abdominal pain is more constant and is not so distinctly

paroxysmal as in intestinal obstruction. In peritonitis, we also note that the bowels are soon paralyzed and we do not have the violent peristalsis of obstruction to contend with. The temperature also furnishes a clue to diagnosis, it being higher from the start and with a tendency to exacerbations in peritonitis; while in obstruction, it remains near to the normal point.

Appendicitis is easily distinguished as a rule. The higher, rising temperature, small, rapid pulse, localized pain and tenderness, rigidity of the right recti muscles, together with the previous history of the attack, renders a diagnosis not difficult. However, we sometimes meet cases in which obstruction is the result of or accompanies an attack of appendicitis or peritonitis, and a diagnosis is not so easily made. The treatment surgically is the same, however, and the absolute diagnosis can be deferred until after the abdomen is opened. There are a number of other pathological conditions which have been at first mistaken for the disease under discussion, such as gall-stones, floating kidney, renal calculus, ovarian and uterine tumors, lead colic, etc. A careful examination and inquiry into the case, however, will usually settle the question.

Having correctly diagnosed a case of intestinal obstruction, naturally the next question which enters our minds is, what shall we do for our patient? The one thing that we must not do, is to give a cathartic (for reasons outlined above). In the absence of any history of chronic constipation, gall-stones, previous abdominal operation, or of the swallowing of a foreign body we may suspect intussusception, or an obstruction from a dynamic cause. In that case the best thing to do, is to give a hypodermatic injection of 1-60 to 1-20 grain of atropine sulphate, and repeat the dose in two or three hours if necessary. Atropine has a quieting effect

on the bowel, which is due to a paralysis of the nerve endings in the involuntary muscular tissue, and it also diminishes intestinal secretion, as well as more evenly distributing the pressure from the contained gas. Kreitner, Bofinger, Luettgen, Pritchard, Aronheim, Schulz, Adam, Moritz, and other German and Austrian authors report astonishing results from the hypodermatic use of atropine in the paralytic and spastic forms of obstruction. Batch, Bofinger, Grebel, and the British Medical Journal report absolute failures with the atropine method, Bofinger's two cases showing extensive gangrene, post mortem. He states that both patients might have been saved if laparotomy had been permitted. The toxic effect of large doses of atropine is a serious barrier to its extensive employment. I think that atropine should be given a thorough trial if the case is seen very early. Morphine should be given only after a diagnosis has been made and then, only where the pain and suffering is very intense. Morphine, as well as atropine, tends to mask the symptoms of the real trouble.

After the patient has had the atropine, we may in the meantime resort to high enemas of castor or olive oil, soap suds or hot saline solutions. I have never seen any of these measures of the slightest avail in a case of *genuine* obstruction, but give them for what they may be worth. If they do nothing else, they satisfy the patient and his friends that everything has been tried before operation is rendered necessary. Stomach washing has been advocated by some authorities, but I can not see the benefit derived, except possibly in clearing the stomach of bile or fecal matter, which may have been lodged there by anti-peristalsis. I believe that we should not, in any case, adopt any measure in the carrying out of which we use up valuable time, and thereby use up the patient's resisting power. I be-

lieve, moreover, that early operative interference, in competent hands, is by far the most conservative treatment that we can pursue. Where we have the full confidence of our patient, and our word is law, immediate removal to a first-class hospital and operative relief of the obstruction (whose seriousness the patient should fully understand) should be our best and firmest advice.

When we observe the high mortality rate of this disease, and particularly after late operations, after the patient's resisting powers are away below par, we, as the guardians of humanity's health, owe it to our suffering fellow men, to relieve their suffering and restore their health by early diagnosis, prompt operative measures and careful after-care.

420 Woodward Ave.

Six Year Course at McGill.—McGill University has recently established a six-year-course in Applied Science and Medicine. Two years ago the corporation established a six-year-course in Arts and Medicine and now the same privilege has been extended to students in the Faculty of Applied Sciences. In the third year of Applied Science the students may attend lectures in the faculty of Medicine in anatomy, physics and histology; in the fourth year, in anatomy, physiology, histology, pharmacology, and medical chemistry. At the end of the fourth year the degree of B. Sc. will be conferred. The fifth and sixth years will be devoted to medical studies entirely, and at the end of the sixth year the degree of M. D., C. M., will be conferred.—(*Philadelphia Medical Journal.*)

Asthma Cigarettes.—

Belladonna leaves.....	22 grains
Hepbane leaves.....	12 grains
Stramonium leaves.....	12 grains
Phellandrine	4 grains
Opium	1 grain

SOME REMARKS

About the Third Annual Conference of the Committee on National Legislation of the American Medical Association and Affiliated Societies.*

BY EMIL AMBERG, M. D.,
Delegate of the Michigan State Medical Society.

The third meeting of the conference on national legislation took place in Washington, D. C., on April 10th and 11th, under the efficient chairmanship of Dr. H. L. E. Johnson, of that city. A more important, instructive and at the same time pleasant meeting can scarcely be imagined. Besides the standing committee of three (Drs. Johnson, of Washington; Rodman, of Philadelphia, and Welch, of Baltimore) and the representatives of the Army Medical Corps, the Navy Medical Corps, the Marine Hospital Service and the Bureau of Animal Industry, delegates from the various state medical societies were also present. The conference passed resolutions on the death of Dr. Tuckerman, of Cleveland, whose memory will long be gratefully remembered by the conference and by the profession in general.

Several bills concerning the Army Medical Corps received careful consideration and endorsement, as did many other important measures pending.

A very thorough and lengthy discussion took place when the committee on Uniform Medical Legislation, on the basis of uniform education, brought in their report. Dr. Reynolds, of Kentucky, was, at the last moment, prevented from being present.

The various parts of the committee report were carefully considered. It was decided to advocate the appointment of a standing committee of three on Uniform Medical Legislation by the American Medical Association and to recommend the formation of a committee of

*Written for the Detroit Medical Journal.

three on uniform medical legislation by the state medical societies.

The second part, advocating the formation of a Federal examining board, if the Constitution of the United States would permit it, had to be changed, because from information obtained from a reliable source by the writer it was shown that such a board would, in all probability, be unconstitutional. After much discussion, Dr. Rodman's idea of a voluntary National Examining Board, with the proviso that the power to grant licenses be left to the single states, territories and the District of Columbia, was regarded as comparatively simple and was endorsed. The whole report was referred to the House of Delegates of the American Medical Association.

The more thorough organization of the state medical societies and the growing influence of the American Medical Association were noted with satisfaction. The report of the representatives of the Army Medical Corps stated among other things that up to 1899 the annual number of deaths from small-pox in Porto Rico was 700, but since 1,000,000 people had been vaccinated in four months there had been only three deaths. Cuba was reported free from yellow fever.

Incidentally some very interesting remarks were made—the necessity of educating the public in hygienic matters was brought forward and also the idea that the municipalities should direct their attention toward abolishing the slums before constructing beautiful boulevards and costly public buildings. A venerable member of the conference, with fifty-two years of practice, stated with regret that in some parts of the South the sanitaria constructed by Nature had been destroyed, the forests being devastated and the timber going to the four corners of the world.

The delegate from Michigan spoke also of the commendable inspection of school

children, of the proposed amendment to the medical practice act, of the realization of the growing influence of the American Medical Association, and regretted that Third Assistant Post Master General Madden could not deprive a greater number of medical publications of the second class privilege.

All the subjects, of which only a few have been mentioned in this short article, were presented clearly, the discussions were concise and to the point and the fact that only trained members of the profession were present—men who quickly grasped the ideas brought forward—made it possible that a great many subjects were treated with thoroughness.

It was inspiring to see this body of men, representing the medical profession of the country, discussing subjects and expressing opinions on measures which receive the consideration of the law-makers of the land; and it affords great satisfaction to notice that the unbiased opinion of an unselfish body met with due recognition.

270 Woodward Avenue.

Elephantiasis of the External Genitals.

—The March *Lancet* says: Elephantiasis of the external genital organs not the result of its usual cause, the filaria sanguinis hominis, is certainly rare. It is obvious that it may follow any obstruction of the inguinal lymphatics, and that it does not more commonly follow the removal of the inguinal glands is probably to be attributed to the fact that all the glands are very rarely removed. The question of treatment is difficult. Some improvement follows the removal of much of the hypertrophied tissue, but in many cases as the lymphatic obstruction continues there is a great tendency to a reformation of the trouble. J. P. Zum Bush reports two cases in which elephantiasis of the sexual organs followed removal of the inguinal glands. While this must be a great rarity, it is certainly a matter of considerable importance and one which should be borne in mind.

TAKING HIS MEDICINE.*

BY C. E. BOYNTON, B. S., M. D.

When a patient calls at our office and takes away medicine or a prescription we can never be certain that our treatment will receive fair trial. Some years ago, when the writer was doing duty in the hospital he was consulted by a patient who showed signs of marked hepatic complications of a chronic type. Aqua regia was prescribed for him. The patient did not return, but after more than a year he called upon a friend of the writer who was a practitioner of wide experience and prominence. The same prescription was handed to the patient, who noted the similarity between it and that of the writer, remarking at the same time that he had never gone to the trouble to have Dr. Boynton's filled. "Well," said the senior M. D., "if you had been taking that medicine for the past year the chances are that you would now be in comparative health. As it is, your prospects for recovery are very slim." In six months the patient was dead.

Probably not sixty per cent. of the drugs put up by druggists on physicians' prescriptions are taken. Most of the patients when they are able to be around skip the medicine a third of the time. When the doctor directly superintends the putting up of the medicine it is more likely to be taken. The fear that a druggist will make a mistake is more or less present in the mind of a layman. Tablets are more likely to be taken than liquids, provided that the patient has no prejudice against a "pill." This fact is of more direct application to the cases of patients who are at work. For this ambulatory class of patients I prescribe tablets in a small bottle, so that the patient can have them in his pocket at all times. It is also well, when it is a matter of indifference, to mention that a medicine

may be taken before or after meals. The chances then are that it will not be omitted altogether.

When convinced that a patient is likely to neglect his medicine it is sometimes well to direct that it be taken every two or three hours, when three times a day might answer—care being taken to so regulate the dose that no ill effects will follow, even if directions are followed out to the letter. Patients sometimes do follow advice.

There are patients who would rather not get well at all than to be made a little uncomfortable in the process. Their everlasting fear that the medicine may poison them or inconvenience them a little sometimes handicaps a physician completely. These patients should be treated in a sanitarium or under the watchful care of a trained nurse. The art of fitting the treatment to the case so that the treatment will get a fair chance requires experience and a knowledge of human nature. A doctor may be ever so well educated, but if he lacks this knack he will be unsuccessful.

There is a positive, lucid way of explaining to a patient how to make use of a treatment and how to tolerate its discomforts that will inspire confidence that will last. A mistake is often made at the start when we strive to build up a patient's hopes, which may be in the dumps at the time. We may say too much. Possibly for two or three days the patient is better because of the stimulus our hopeful words have given him. Then, later on, down goes hope to zero and the patient forgets that he was better a little while ago. For a time he quits taking medicine, thinking that it is making him worse; and mentally the physician feels that the fool ought to suffer. But now is the time to skilfully tack; bring the patient out of the slough of despondency and turn defeat into victory.

Sometimes it pays to give a patient

*Written for the Detroit Medical Journal.

more attention than he actually needs, in order to keep him steadily taking our medicine; when a patient has his own way for a time he is very apt to give that fool judgment of his something to do. The patients with whom we make a failure are not apt to be those who are able to pay promptly, but those who are on the edge of the charity list. We cannot ignore them and yet it will not pay us to run after them. They get our medicine, take it carelessly and stop its use too soon. Then they go elsewhere, and because they have paid us \$2 for the first treatment they give us a bad name generally.

It is often wise, with this class of patients, to tell them to call at the office free of charge and make a report on the progress of their case. They will call once, perhaps, and you will charge them nothing. Then you have a hold on their gratitudo and they will call for you the next time instead of going to someone else.

Los Banos, Cal.

FACIAL ERYSIPELAS.*

BY C. E. BOYNTON, M. D.

There is so much to know in the practice of medicine that after a country doctor has been at it for 14 years as has the writer he is quite fastidious about his reading.

Much that is written about bacteriology, for example, may be true and worth knowing; yet just how to use Ichthyol in erysipelas is more practical, useful and money-earning knowledge than the details of bacteriology—at least for the country M. D. Now, when I go to a case of erysipelas, I pack along a $\frac{5}{4}$ iv bottle of Ichthyol, and I paint the patient up plenty, face and neck. If necessary I shave the head and paint that, too.

Then we sweat him with pilocarpine, stimulate him with strychnine, clean him

out with saline laxative and calomel, saturate him with calcium sulphide, grs. $\frac{1}{2}$ every hour, and give him echinacea plenty. If malaria lingers around he gets outside of x to xv grains of quinine per day and he gets well so quickly that the doctor is impressed with the fact that the more he may know the less he can make. Los Banos, Cal.

MALARIAL BILIOUSNESS.*

BY C. E. BOYNTON, M. D.

1. Where there is malaria and biliousness, there should Sodium Phosphate be used.
 2. Buy your Sodium Phosphate by the 100 lbs. and deal it out in $\frac{5}{4}$ vi paper boxes.
 3. The dose in these cases is, for the adult, 5 j-ij t. i. d. or 5 ij-iji before breakfast.
 4. In cases like the above, grs. v-x Calomel starts active improvement at once.
 5. Of course some antiperiodic—quinine, or better euquinine—should be used, but when we ply the Calomel and phosphates, less of this is required.
 6. Wherever there is fever we find a distinct use of the Sulphocarbonates. Malarial fevers are no exception to the rule.
 7. The typhoid state (not typhoid proper) will rarely result or continue if the sulphocarbonates are used.
 8. Echinacea and Calcium Sulphide combat poisons after they have reached the blood and are therefore helpful in all fevers.
 9. Where there is congestion Glonoin should first and frequently be given. Then Atropia.
 10. When the skin is yellow and the bile flow disturbed, oxgall in some form should be given, to lubricate the bowel.
- Los Banos, Cal.

*Written for the Detroit Medical Journal.

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DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

WALTER C. BOYNTON, Manager.

—ISSUED BY—

THE DETROIT MEDICAL JOURNAL CO.,

NOTE.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, to 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., MAY, 1902.

RECIPROCITY AND UNIFORM MEDICAL LEGISLATION.

Never before in the history of medicine in the United States has the question of interstate reciprocity for the license to practice medicine, and that of uniform medical legislation, taken such a step in advance as at the present time. Although of comparatively ancient origin the movement in its present form dates back only a few years.

At present a large number of medical boards are not only actively interested in the movement but we learn that besides the National Confederation of state medical examining and licensing boards there exist two other bodies which are interested in the betterment of conditions—namely, the Confederation of the New England States Examining and Licensing Boards, and the Reciprocal Federation of State Medical, Examining and Licensing Boards.

The conference of the committee on National Legislation of the American Medical Association and affiliated societies, mention of which is made in the reading columns of this issue, only recently discussed this subject and referred it to the House of Delegates of the American Medical Association, recommending a voluntary national examining board, leaving the power of issuing licenses in the hands of the states and territories. A federal examining board is considered

unconstitutional, owing to the policy of the federal government in not interfering with the states' conduct of their own medical provisions. When is is considered that many portions of this country are homogeneous as regards their population it seems reasonable to believe that there is not a great need for barriers between the political divisions as regards the regulation of requirements for the issuance of a license, but it is not probable that conditions will soon be such as to admit of having the general control of such matters in governmental hands.

Under present conditions and opportunities, every state may have a high standard of requirements for admission to practice, if she will, and it seems a pity that some general provisions, having federal sanction and backing, can not now be forthcoming. The medical profession of the United States has entered hopefully into the new century. Whatever the future may have in store as to the development of economical and commercial conditions, this much seems to be established—that in so far as medicine is concerned, be it from the standpoint of science or organization, the profession in the United States may witness and be participants in changes which will make a period memorable for all times to come. Science and organization stand more closely together than we may imagine *a priori*.

THE SOUTHERNER AND THE NEGRO.

In another portion of this issue of the JOURNAL appears a reprint from one of our exchanges. We in the north are accustomed to believe that the negro has his good points. Dr. Ferguson quite evidently disagrees with us, as even a cursory reading of his paper before the Macon society will show. But there are a few reasons for thinking that the doctor is a trifle mistaken in the extreme nature of his views. Perhaps he is one of th-

many who do not realize how serious things look when they are down in cold black type and scattered broadcast over the country. His statements are surely not based upon a close observation of the negro race as a whole. It can scarcely be possible that every southern negro is the despicable creature he prints him.

One of the invectives against the negro, according to the doctor's article, is that no genuine case of sunstroke has ever yet been recorded against a member of the black race. Are we to take this as the standard of excellence? Does Dr. Ferguson want us to base our estimation of an individual's value to the community on his susceptibility to the effects of the sun? We have known personally cases of men who had suffered genuine cases of sunstroke—and their usefulness was not materially advanced thereby. Again, the negro's teeth do not decay before advanced years. Surely this is a serious state of affairs. Every Christian's teeth should be in an advanced stage of destruction before he is competent to play a valid part in the scheme of civilization. Nor does the negro drink to excess, except rarely. This is another serious count against him. Of course, the more a man drinks the better fitted he is to take his seat as one of the ruling class. He has no cerumen in his ears. Heavens! What are we coming to? Shall a waxless-eared individual be permitted to breathe the same air that we do, to black our boots—for a consideration—to drive our horses—on a salary—and to live at all? "Chops and tomato sauce," said the able pettifogger in the *Pickwick* trial, as a reason why the amiable club president should be mulcted of damages for not marrying the portly Widow Bardwell. "Who has ever heard of a negro man or woman fainting at any horrible sight, as white men often and white women invariably do?" asks this high-minded southern gentleman. Of course white

women always faint at any horrible sight. The operating-room and the amphitheatre always resemble a bloodless shambles, while the surgeon picks his way over the unconscious bodies of the trained nurses and assistants.

The ideal man, reasoning from Dr. Ferguson's article, must be susceptible to sunstroke (the genuine article) must have decayed teeth at an early age, must drink to excess more than rarely, and he must not only have wax in his ears but must faint at any horrible sight he sees. The ideal physician! It is undoubtedly unfortunate that men like Dr. Ferguson still exists in the south. Fortunately they are few and yearly becoming fewer. We do not know Dr. Ferguson but we do know some negroes. Our ideas of the negro race are not taken from the pages of "*Uncle Tom's Cabin*." Presumably Dr. Ferguson is familiar with the negro characteristics, having a residence in the south. But he sees through a miasma of class prejudice and contempt for any man whose skin is darker than his own. A residence further north should be attempted by the doctor before he becomes further bigoted, if that is a possible thing.

THE RIGHT NOTE.

Editorially, the *Philadelphia Medical Journal* touches upon an abuse that is certainly assuring larger proportions. It says: "The medical profession owes it to itself and to the public, to take action against the custom on the part of some members of the profession of receiving commissions from instrument-makers, druggists and others to whom they may have occasion to refer patients. A truss manufacturer believes, as he states in a recent circular letter, that he has avoided further misunderstanding by offering to physicians a professional discount (so-called) of 25 per cent., which is to be forwarded to the physician referring the patient each month following the full payment of ac-

count. For the sake of those members of the profession who still have some sense of decorum in such matters, the amount may be deducted instead from the patient's bill. No criticism, we suppose, attaches to the instrument maker. He is in business, and as it is now an accepted tradition in the commercial world that anything to attract customers, not distinctly illegal, is allowable, he is quite within the ethics of his trade. The lamentable feature is that his circular reveals a benumbed ethical sense on the part of members of the medical profession that is derogatory to that body, and the fact that we know that such venal offenses have existed in the past is no consolation when we consider that this circular indicates that such conditions are wide-spread in the present."

EDITORIAL NOTES

Advance sheets from the Medico-Legal Journal show that unusual interest is being manifested in the approaching meeting of the American Congress of Tuberculosis, to be held at the Majestic hotel, New York City, on May 14, 15 and 16. Not only has governmental recognition been made of the importance of the congress, but representatives of foreign countries have signified their interest in the matter by consenting to become officers of the congress. His Excellency, the Earl of Minto, Governor General of the Dominion of Canada, was the presiding officer at a convention from all parts of Canada, the result of which was the formation of the Canadian Society for the Prevention of Consumption. He accepted the honorary presidency of the society, and now, with Dr. F. Montizambert, director of the Public Board of Health of the Dominion, is a vice-president in the American Congress. Other

physicians from the South American republics, from Mexico and other territories have accepted honorary and active positions in the organization.

Gov. Bliss, of Michigan, has accepted an honorary vice-presidency and has expressed the greatest interest in the work to be done by the Congress. Cressy L. Wilber, M. D., of Lansing, Mich., is one of the vice-presidents-at-large, and Henry B. Baker, M. D., secretary of the State Board of Health, is a member of the executive committee. Every state is showing enthusiasm in a desire to assist the object of the Congress and we may expect some valuable results from the meeting this month.

The first report of the New York State Hospital for the Care of Crippled and Deformed Children, for the first ten months of its existence, has been received. The report shows that in the time specified twenty-four children were admitted to the hospital, which accommodates only 25 patients. Of these, 13 were suffering from hip disease, five with spinal disease, one with knee joint disease (white swelling), three with infantile paralysis, one with club foot and one with rachitic deformity of the spine. Thirteen of the children were boys and 11 were girls. Marked benefit was the rule in all the cases treated and the board of directors feels that the hospital has been thus far extremely successful. The hospital is especially intended for the treatment of deformed children whose parents are too poor to secure the proper care for them, and who are susceptible of cure. During convalescence the little patients are taught useful things, which in the future will be of benefit to them. Even in the short time the institution has been in existence, it has relieved much suffering and already the number of patients on the waiting list is very large. It is to be hoped that the institution will flourish. It deserves to.

"Clinic Week" at the Detroit College of Medicine opened pleasantly on the last day of April. Over 80 physicians were present and all sections of the country were well represented by them. President James E. Davis delivered an address in the morning and Dr. T. A. McGraw gave a talk on surgery at St. Mary's hospital. In the afternoon the speaker was Dr. F. W. Robbins and in the evening the physicians in attendance at the clinics were shown the hospitality of the Detroit Medical Society. On the first of May Dr. McGraw again lectured at St. Mary's, illustrating his words with an operation, and he was followed by Dr. C. G. Jennings. Dr. David Inglis, Dr. Eugene Smith, Dr. W. M. Harvey and Dr. D. M. Campbell gave lectures in the course of the day and Dr. C. B. Burr, superintendent of Oak Grove, Flint, made an address in the evening. As we go to press the clinic week is pleasantly inaugurated.

Dr. H. A. Cordier, chairman of the committee of arrangements for the twenty-eighth annual meeting of the Mississippi Valley Medical Association, has announced October 15, 16 and 17, 1902, as the dates for the next meeting, to be held at Kansas City, Mo. Dr. C. B. Parker, of Cleveland, Ohio, will deliver the address in Surgery and Dr. Hugh T. Patrick, of Chicago, that in Medicine. The society extends a cordial invitation to every physician in the United States and especially of the Mississippi Valley to attend this meeting. Titles of papers should be sent as early as possible to the Secretary, Dr. Henry Enos Tuley, 111 W. Kentucky St., Louisville, Ky. Dr. S. P. Collings, of Hot Springs, Ark., is president of the association.

Joseph J. Kinyoun, M. D., formerly the director of the hygienic laboratory in the Marine Hospital service, has accepted the directorship of the biological laboratories

of the H. K. Mulford Company at Glenolden, Pa. Dr. Kinyoun has had a wide and varied experience in biological work, visiting the laboratories of Europe and Japan in the interests of the United States government. As a governmental representative he has had the assistance and instruction of Professors Koch, Pasteur, Behring and Roux in Berlin and he has also spent considerable time at the Institute Pasteur in Paris. On several occasions he has been delegated as the special representative of the government to International Congresses.

At the annual meeting of the Detroit Medical Society, held in Elks' hall, Valpey building, on the evening of Wednesday, May 30, the following officers were elected: President, Dr. F. B. Tibbals; Vice-President, Dr. W. S. Anderson; Treasurer, Dr. H. W. Yates; Secretary, Dr. L. J. Goux. Dr. Goux's election to the office of secretary starts him in his third term. After the meeting an informal reception was held.

King Edward VII and Tuberculosis.— King Edward has appointed a commission to investigate Professor Koch's tuberculosis theory. The scope of the inquiry is officially said to be whether animal and human tuberculosis are identical, whether animals and humans can be reciprocally infected, and under what conditions, if at all, transmission to man occurs, and the means of combating it. The commissioners are Sir Michael Foster, secretary of the Royal Society; Dr. Sims Woolhead, professor of pathology, Cambridge University; Dr. Harris Cox Martin, Prof. J. McFadyean and Prof. R. W. Boyce. The commission has been granted the fullest powers and facilities, and the members have been urged to make a prompt report.—(*Exchange.*)

Neuralgia.—

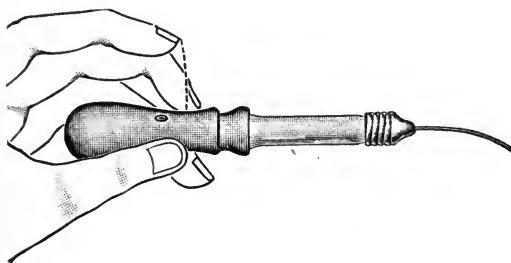
Aconite tincture.....	5 minims
Chloroform spirit.....	5 minims
Lard	20 grains
Mix and apply to seat of pain.	

—(*Merck's Reports.*)

NEW INSTRUMENTS & DEVICES

LACHRYMAL SYRINGE.

This device is recommended to oculists and general practitioners of medicine for its simplicity and convenience, combining the simple qualities of the familiar bulb syringe, while the objectionable features of the old style are done away

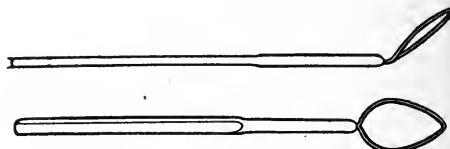


with. The air valve in the bulb prevents the mixing of air with the medicament employed and no liquid can enter the bulb to impair its quality. The device illustrated has received tests as a lachrymal syringe and also as an aspirator and it has been found to adequately meet the demands made upon it in use. The simplicity of the air valve is such that the syringe can readily be used by the patient himself. It has sufficient power to make its use as an aspirator possible and it can readily be sterilized by heat and alcohol. With an irido-platinum needle the syringe retails for \$1.00.

A HANDY DEVICE.

It is difficult to know just what to call this device, since it is susceptible of use in so many different ways. As may be seen from the cut, it consists of an elliptical loop of wire, set at an angle with a stock. The shape of the loop conforms quite closely to that of the human eye and when the loop is placed over the lids it is an easy matter to turn the upper one back so as to admit of an easy inspection

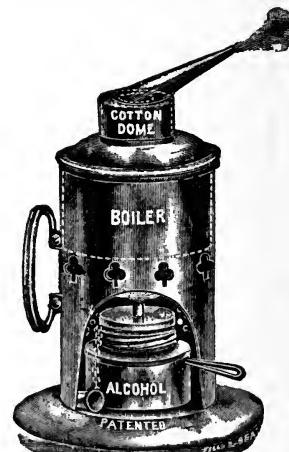
of foreign bodies. Or the device can readily be used as a tongue depressor, its simplicity making it easy to render it aseptic for all purposes. If desired, it may also be made use of as a dull curette. When two of them are used together, the loops being made to work one upon the other, the device becomes useful in clean-



ing out abscesses, boils, and so on, the narrow edges of the two loops coming together in such a manner as to effectually force out pus from the cavity. The device is well nickel-plated and is, without much doubt, a very handy thing for the practitioner to have on hand. Two of them together retail for \$1.00, so they are not a very great expense.

FORMALDEHYDE GENERATOR.

When epidemics are abroad the question of disinfectants naturally arises and the average physician will be glad to have some simple and inexpensive means of securing disinfection. The device il-

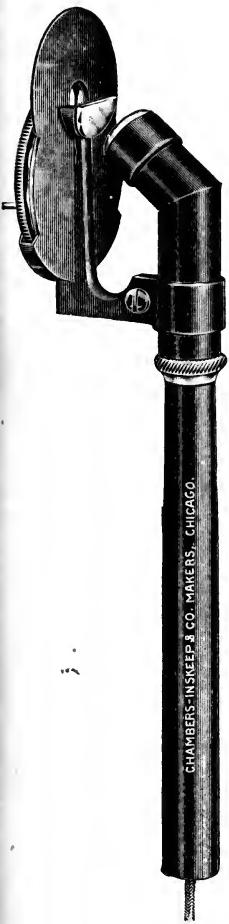


lustrated herewith answers the requirements admirably, and at a low price. It consists of a seamless boiler, with no solder, and a dome above for containing

cotton saturated in the antiseptic which it is desired to vaporize. Heat is furnished by a safety alcohol lamp and the device delivers alkadol, benzanol, eucalyptol and other preparations in a warm medicated vapor five feet to a given point. A handle on the side provides for easy moving from place to place. The device is well adapted for the sublimation of calomel. The size of the article is 5 x 9 inches and it comes securely boxed. It retails for the sum of \$1.50.

SELF-LUMINOUS OPHTHALMOSCOPE.

This ophthalmoscope has numerous advantages over similar instruments of the same class and for the same purpose. Its



from reflections or glare and that it is always ready for use. There are nineteen lenses in compact form and the bat-

tery in connection with the light is provided with a rheostat, so that in the presence of a current controller in the physician's office, a battery is unnecessary. The cut used herewith to illustrate the device is two-thirds actual size, and the instrument complete in a silk-lined morocco case, with battery retails for \$15.00 net cash.

SURGICAL AND DENTAL ILLUMINATOR.

This device consists of a combined illuminator, tongue depressor and mirror holder, together with battery for supplying electrical energy for illuminating purposes. One of its chief claims to recognition is its small size and consequent portability. It is 4 x 4½ x 1½ inches, and can readily be carried in the physi-



cian's bag, furnishing him with a compact and convenient means of securing the illumination of the mouth, throat, nose, ear, etc. In the battery are three cells of four and one-half volts, the battery being guaranteed for one hundred days from the date stamped on it by the manufacturer. It can be renewed by the physician himself at a small expense. The hard rubber handle is detachable in the center and when it is taken apart all connections are broken, so that accidental exhaustion of the battery is obviated. The connection which produces the light is made when the small non-heating lamp is slipped into the socket provided for it. The tongue depressor is fitted with a mirror holder, adjustable and detachable from the handle. The entire apparatus is put up in a light case and retails complete to the physician for \$3.00.

THERAPEUTIC BREVITIES

Icepack and Brand.—In a recent article Dr. Leslie Roos proposes to substitute the icepack for the Brand method in typhoid fever. The constant endeavor to discover some efficient substitute for tubbing that shall be free from the practical drawbacks and inconveniences of the method is an unconscious tribute to the great originator of the rational treatment of typhoid fever. That tubbing is inconvenient and expensive for the patient's family, when he is treated at home, and more or less distressing to the patient himself is not to be denied, and we agree with most of the arguments against the method. Nevertheless some of the disadvantages seem to be somewhat exaggerated. A great deal is made of the danger of chilling the patient while the bath is being prepared. Surely this is an objection that can readily be obviated, even if it were as serious as the author would have us believe. As a matter of fact, a patient with a high temperature, even when it is due to pneumonia, which is the complication that we are told is chiefly to be dreaded, is not so likely to catch cold as a normal individual. It is this bugbear of "catching cold" that is largely responsible for much of the opposition to the use of hydriatic measures in the treatment of disease, but it is not an argument that one expects to hear from physicians. The only really valid objections to the full bath treatment are the distress it occasions to the patient, and the inconvenience and expense. In regard to the former it is to be observed that the sufferings of the patient, in all but a very few instances in which tubbing may have to be abandoned, are largely mental and can be much alleviated by appealing to his common sense and fortitude. The danger of haemorrhage and perforation is a graver objection; it does not, however, appear to be well founded. In the first place, while it is true that the body is rubbed during the bath, which would be unbearable without this comforting procedure, "shaking" and rough handling of any sort is especially deprecated and is perfectly avoidable.

The observation that haemorrhage and perforation commonly occur after a bath loses much of its force when it is remembered that the patient is practically always in the condition either of having just had a bath or being about to have one, so that it might be said with equal truth that these complications usually develop just before the patient is placed in the tub. But there is one important feature of the bath treatment that is entirely lacking in the ice-pack as described by Ross, and on which the latter does not lay sufficient stress. It is the mechanic stimulation brought about by vigorous rubbing, and it is quite as essential a part of the procedure as the exposure to the low temperature of the water. The ice-pack described in the article is practically a graduated cold wet pack, consisting of successive applications of cold ranging from 70° to 40° F., followed by the application of ice to the body; the procedure lasts two hours. This is an excellent sedative measure, as the writer claims, but it does not appear that it has any stimulating influence. The use of the wet pack in typhoid fever is not a new departure; it has been tried by others and abandoned because it was found wanting in this important particular, the stimulation of the nervous system. If the object of our treatment were to abstract heat, the ice-pack or any other continuous, mild application would fully meet the indications, but the fallacy of the antipyretic treatment is now universally acknowledged. We cannot agree with Roos's prediction that the ice-pack is destined to supersede the Brand treatment, and since, according to Brand, typhoid fever is absolutely curable if the case comes under treatment before the fifth day, his prophecy that "the mortality of typhoid fever will be cut down to about one-fourth of its present number" loses much of its force. That the ice-pack, or graduated cold wet pack, is a more convenient and less heroic measure than tubbing is undeniable; that it is as effective is, on theoretical grounds, extremely doubtful. It remains to be seen whether actual experience will demonstrate its usefulness in spite of theoretical considerations.—(American Medicine.)

X-Ray in Sarcoma.—At a meeting of the Harvard Medical Society of New

York City the following case was brought to notice, being reported in the *Medical News*: Dr. Morton's second case described was a young woman suffering from what proved to be sarcoma of the elbow. The first symptom noticed was a painful condition of the elbow-joint, diagnosed and treated as rheumatism. After a time considerable swelling developed and it was thought that tuberculosis was present. Excision of the joint was practised, but sections of the tissues showed that the process was sarcomatous. The arm was amputated then in the upper third. After a few months the set of pains resembling those that first occurred in the left elbow were noticed in the right. A similar swelling of the joint developed. A Roentgen radiograph of the subsequently amputated arm had been taken and this was compared with the radiograph of the suffering right arm. The two showed the same abnormal characteristics, with disturbances of the light and dark areas in the bone that showed the existence of similar pathological conditions. The right arm was submitted to the X-rays and after the second treatment the pain completely disappeared. It has been treated for a month and the swelling has disappeared and now the arm can be used entirely as if nothing were the matter. The patient is able to swing it, lift weights and do everything as before. Meantime sarcoma has developed in the stump of the amputated arm. This is under treatment with the X-rays, and though the case is not definitely cured great improvement has been obtained.

Modern Small-Pox Treatment.—Dr. T. F. Campbell contributes some interesting thoughts along this line in a recent number of the *Philadelphia Medical Journal*. Excerpts from his paper follow:

The present epidemic fortunately seems to have been a mild southern type of small-pox from Cuba and the Philippines, and it is only now in the absence of present or past vaccination beginning to attain its old time northern virulence. So the comparison has been rather odious to really representative physicians, and seriously embarrassing to the others. The latter's only answer vouchsafed was usually that the "good" kind of vaccine was "no good" and "wouldn't take."

People rushing for vaccination would complain if they did not get "takes" in three days, when in proper vaccination one or two weeks is necessary, the three days' symptoms being septic. This, however, has often not been explained to them, and in fact the directions on at least some of the best vaccine have only this winter stated correctly the proper interval of incubation of vaccinia, that is one or two weeks.

Hence, antiquated methods curried favor temporarily with the unknowing; and made for retrogression, especially, where "trade" was an object. Even the best pharmaceutical houses seemed influenced by the majority's criticism of attenuation; forgetting that majorities are not always right, and that real minds are rare. Certain it is that some of the best brands of vaccine in use this winter do not seem as fully purified or as mild in effect, as last season's. Possibly also the unprecedented demand tempts the use of more, and other, than the purer portions of bovine vesicles.

For all the above reasons vaccination to be properly done should be attended to in advance of epidemics; and should not be lightly undertaken at any time, nor for the usual paltry fee, it requiring the same skill and technique as modern surgery.

Alcohol which evaporates rapidly may be used to surgically clean the arm, so difficult to do owing to hair follicles and ducts of the skin. Then asceptic vaccine applied with boiled lance used simply to abrade or scrape the skin to the "pink" and to distribute the vaccine and almost tattoo it in for some time gives most reliable and safe results. The clothing should not be replaced until the site is coated over with the glazed appearance of protective lymph; as soon as the "take" occurs, the arm should be inspected every day, and if the process is becoming vicious, by fault of the patient or otherwise, the same may be minimized or limited by poulticing off the scab with a one in thirty solution of phenol in boiled water. The lance may assist in loosening the scab and allowing this solution, or hydrogen peroxid, to permeate and irrigate the depression and clear out the pent-up and eroding pus, which causes the "pit."

The same procedure averts pitting in small-pox when the scab exceeds its protective function, and is sealing up harmful

phagedenic material. The solution of carbolic acid one in thirty sponged over the surface corrects the redness and the itching so intolerant and so constantly present.

From all the foregoing, and until we have federal supervision of, or at least uniformity in vaccine, it has come, that the physician has vaccination to defend, and an argument to make locally, in the public interest. Happily, however, there are available indisputable facts sufficiently convincing to all reasonable people.

One hundred years ago a smooth face was as rare as a pitted one is to-day, and this improvement and the mitigation of the disease is due to vaccination.

At that time it seems that the wealthy ladies with pitted faces had begun to notice with serious concern the much better complexions of their maids, and it was then discovered that milk-maids who contracted cow-pox from cows were subsequently immune to small-pox.

Hence, vaccination, (*vacca*, a cow) the whole elaboration of which is accredited to the immortalized Dr. Jenner in 1798.

The question had been mentioned by medical observers for some time previously; and like all additions to public welfare, it was a matter of composite and gradual evolution, culminating about the time mentioned in the records.

Since then and along with the march of antisepsis, vaccine has in the last decade been practically purified of all extraneous germs, simply by a three weeks' solution in glycerine. This clears it of harmful material without in the slightest impairing its virtues.

So by the use of purified vaccine properly applied discomforts and dangers are eliminated; and vaccination is made safe and effective even for the infant, invalid, or prospective mother, the latter so especially needing the safeguard of protection from variola.

International Sanitary Policy.—The sanitary resolutions adopted by the second international conference of American States at the City of Mexico, which were published in the Public Health Reports of February 14, 1902, were afterward slightly amended, and in that form approved by the International Sanitary Congress at Havana, February 15 to Fe-

bruary 20, 1902. The corrected text provides:

- That all measures relating to the subjects of international quarantine, the prevention of the introduction of contagious diseases into a country, and the establishment and control of maritime and of international land detention, or health stations, shall be wholly within the control of the national government.

- That there shall be established in the ports of each country two kinds of detention (a) that for inspection or observation—and (b) that for disinfection.

- That prohibitive quarantine on manufactures and merchandise shall be abolished, and that merchandise proceeding from noninfected ports or places, and which passes through infected territory without being detained therein beyond the necessary time of transit, shall not be subject to detention or other sanitary measures beyond that of the inspection which may be considered necessary at its destination; and that such inspection and delay shall not exceed the time absolutely necessary therefor. Further, that this same regulation shall apply equally to international communication by railway, provided that live stock, hides, rags, and immigrants' effects shall be excepted from the above provisions.

- That the governments represented in this conference shall co-operate toward securing and maintaining efficient modern sanitation in all their respective ports and territories, looking toward the final abolition of quarantine. That the existence of any pestilential outbreak shall be promptly notified by the health authorities to the diplomatic or consular representatives of the republics represented in the conference, and that the health officer in each port, prior to the sailing of a vessel, shall note on the vessel's bill of health the transmissible diseases which may exist in the port at that time.

- That a general convention of representatives of the health organizations of the different American republics shall be called to meet at Washington, D. C., within one year from the adoption of these resolutions. That each republic shall be represented by one or more delegates endowed with authority to act with those of the other republics in the conclusion of sanitary rules and agreements.

which will best serve all. That the voting in the convention shall be by republics, each republic having one vote. That the convention shall provide time and place for the holding of subsequent conventions, and that it shall designate a permanent executive board of not less than five members to hold office until the next meeting, which will be known as the "International Sanitary Bureau," with permanent headquarters at Washington, D. C.

6. That effective service may be rendered by the bureau, the republics shall promptly and regularly transmit to it all data relative to the sanitary condition of their respective ports and territories.

7. That the salaries and expenses of the delegates and of the members of the International Sanitary Bureau shall be paid by their respective governments, but that the office expenses of special investigations and those for translation, publication, and distribution of reports shall be defrayed from a special fund created by annual appropriations from the republics represented.—(*American Medicine.*)

Vasectomy Advocated.—In 1850 there was one criminal to each 3,442 of the population, while in 1890 there was one criminal to each 957 of the population. "The law of heredity has been recognized as a most potent force in the development of life as long as history has been written." Among the less civilized, perhaps, strenuous laws have been enacted to prevent the propagation of children by those who were mentally or physically weakened, but sentiment, at the present time, rebels against any attempt to interfere with individual liberty and enjoyment. The astounding increase in crime must, however, soon arouse the people to a sensible discussion of this problem. H. C. Sharp (*N. Y. Med. Jour.*, Mch. 8, 1902) believes that castration will never be a popular method to render these unfortunates sterile, for the operation must not in itself be a punishment to the individual—it must not result in a deformity, neither must it interfere with his enjoyment of life. Castration, furthermore, has a very depressing effect. Severance of the vasa deferentia, however, has been found to be a most efficient means of causing sterility without in any way destroying the sexual

power. The author has performed this operation in forty-two cases and is prepared to state positively that it does not impair the sexual power, but that the patient improves mentally and physically, increases in weight and his will power becomes stronger. Lately he has been following the English method of operating, which selects the scrotal region as the site of operation. The vas is clasped between the thumb and index finger, a longitudinal incision is made about three-eights of an inch in length and the vas is severed. The scrotal wound is not closed. It is strongly urged that this is a method by which a dangerous and hurtful class may be largely diminished in numbers and the race mentally and bodily improved.—(*Medical News.*)

Kaiser Against Christian Science.—

Much satisfaction is expressed in Germany over the Emperor's opposition to the spread of Christian Science and similar movements, which were beginning to find support, especially in court society and among the wealthy classes. The *North German Gazette* says: "On the strength of the most authentic information his Majesty summoned President Von Windheim, of the police, and Dr. Faber, superintendent of the Lutheran Church, to tell them his opinion in regard to a nuisance which, he said, was equally disgraceful to our time and the capital of the empire. The Emperor left it beyond doubt that persons taking part in the doings of spiritualists, faith healers, Christian scientists, and similar oculists shall not be admitted at the Imperial Court." The disciples of Mrs. Eddy were not admitted to the Victoria Lyceum recently, and were told that they would never be admitted again. Herr Windheim says that when he dined with the Emperor on Thursday, his Majesty asked for suggestions for measures to check the spread of the various cults. Herr Windheim deprecated repressive measures, on the ground that they would prove merely an advertisement. The Emperor, while expressing disapproval of such morbid tendencies in emphatic terms, agreed that it would be a mistake to make martyrs of the followers of the different cults, and said that other means must be found for dealing with them.—(*N. Y. Medical Journal.*)

CORRESPONDENCE.

It is always a gratifying thing to the publishers of a magazine to feel that they are able to please their readers. The following letters, taken at random, will show that there are not a few physicians who believe in the policy of the DETROIT MEDICAL JOURNAL:

Cleveland, O., Apr. 1, 1902.

DETROIT MEDICAL JOURNAL CO.,
270 Woodward Avenue, Detroit, Mich.

Gentlemen:—

Please find enclosed two dollars. One dollar is for the DETROIT MEDICAL JOURNAL for this year, the other for the JOURNAL for last year, 1901, which I would like you to send me all together.

Yours respectfully,

Dr. H. H. Pasko,
2234 St. Clair St., Cleveland.

St. Joseph, Mich., April 14, 1902.

Dear Sir:—

Enclosed you will find \$1.00 for the DETROIT MEDICAL JOURNAL, which I am confident is one of the best journals published.

Yours truly,

D. N. Barrett.

Detroit, Mich., April 21, '02

Mr. Boynton,

Dear Sir:—

I will take the DETROIT MEDICAL JOURNAL for a year.

Respectfully yours,

P. G. Sanderson, M. D.

Muncie, Indiana, April 22, 1902.

DETROIT MEDICAL JOURNAL,

Sirs:—

I have read the sample copies of JOURNAL sent me with interest. I like the plan of the JOURNAL very much. I am persuaded that I should become a subscriber. You will find enclosed one dollar for subscription and you may count

my subscription from this, the first number of the 2nd year.

Respectfully,

Ulysses G. Poland.

Hancock, Mich., April 24, 1902.
DETROIT MEDICAL JOURNAL CO.,

Detroit, Mich.

Gents:—

Enclosed find one dollar for one year's subscription to the MEDICAL JOURNAL. Kindly start my subscription with Vol. II, No. 1, as I intend to have same bound at the end of the year.

Thanking you in advance for the favor asked, I remain,

Yours most respectfully,

P. Scholler.

Highland Station, Mich., Apr. 21, '02.

Dear Sir:—

Enclosed find \$1.00 for the JOURNAL. It is a welcome visitor.

Yours truly,

S. L. Weisbrod.

Stirling, Ont., April 28, '02.

My Dear Sir:—

I conceive the D. M. J. one of the very best among Medical Journals with which I am acquainted and from the vantage ground of thirty years in practice I humbly believe that my views are worth much consideration in all such considerations. Its merits are: Brevity of original articles and excerpts: Antagonism toward quack—so-styled "ethical pharmaceutical" compounds: Legitimate advertisements of legitimate Med'l and Sur'l supplies: Non-advocacy of any fads or popular delusions: the friend of an honorable Doctor and his honorable interests. We have too many Journals that are playing "good Lord, good devil" with us, that are controlled by patent medicine concerns, dishonorable to the profession.

Yours truly,

James S. Sprague, M. D.

Answer to Dr. Moore.—On April 25, the JOURNAL received a letter from Dr. J. A. Ward, of Troy, Mo., jocosely taking exception to the stand taken by Dr. G. A. Moore, of the same state, in a poem reprinted in the JOURNAL from the *Medical Herald*. He enclosed the following verses, which are reproduced to show how differently two men, in a spirit of equally good humor and from the same state, can regard a question in which every member of the profession is vitally interested. It is published herewith, and any apologies made for the poem must come from somebody other than the JOURNAL. Here it is in full:

Hold on, good old physician,
Don't dream that dream again.
What low or high condition
Could you see suffer pain?

And people writhe in fire
And suffer pangs of woe.
While you feel no desire
To quench the burning glow?

Or clothe in non-conductors
To shield them from the heat
Or other fire-obstructors
Till they might find retreat?

Use olive oil on plasters
To soothe the blistered skin—
With some carbolic acid
To check the fires within.

Give opiates and anodynes
To calm their troubled souls,
And, sticking closely to these lines,
Move all the burning coals.

What if they never paid you
And ne'er seemed to relent?
Keep love and mercy close in view,
Though never paid a cent.

The doctor has a mission here,
To quiet human pain.
So work on, doc, and never fear,
Or hanker after gain.

And when you cease to labor
And higher life begins,
The good you've done your neighbor
Will cover up your sins.

And when you reach St. Peter's gate—
The pearly gates on high—
You will not have to stop and wait
Or have to pass on by.

But Peter, in his saintly frock,
And crown of purest gold,
Will say, "Come in, my good old doc.,
And keep out of the cold."

Blackmail on Physicians.—In its editorial columns the *Philadelphia Medical Journal* recently published some comment along this line which is so good that we reproduce it herewith:

It is highly important that physicians should understand that there is a new species of blackmail coming into practice against them. This consists in bogus suits for malpractice. In New York the evil has grown to such an extent that physicians have felt impelled to organize, and to seek insurance against such villany just as they do against accident and death.

The game is being worked especially by certain disreputable members of our sister-profession, the law. The scheme is for the lawyer, or "ambulance chaser," to frequent the hospitals, to drum up some impecunious patient who thinks he or she has a grievance against some physician or surgeon, and to institute a suit for malpractice. But actual trial is the last thing that a shyster wants. Such a lawyer is almost as much afraid of a court room as a criminal is afraid of it. He is too well known in it, and too likely to come to grief before a righteous judge. What he wants is simply to scare the doctor into a "compromise," and a ridiculously small sum will often satisfy him. A suit that is based on a claim for \$20,000 may sometimes be settled "out of court" for one or two hundred. The whole scheme is blackmail wearing the livery of the law courts.

The only thing for a physician to do under these rather exasperating circumstances, is to stand fight. He should under no circumstances back down and offer to pay hush money to a conspiracy of blackmailers. Let him reflect that if the suit ever comes to trial (as it never may) he can rely upon the justice of the bench. We regret to say, however, that this latter prop has proved a broken one in some few cases.

The *New York Times* recently printed a most helpful and enlightening editorial on this whole subject. It says that in England the law provides that when a person attacks the reputation of a physician in court he shall file a bond for the costs, and if the suit fails he is liable to an action for libel. This would be a good law in America; but, in the absence of it, physicians should band together, by means of their country and other societies, to protect themselves from what is growing to be an outrageous system of blackmail.

NOTES & COMMENT

The Southerner and the Negro.—There are those who have a blissful feeling that the Southerner, in the light of recent progress made by the negro, is gradually coming to a more friendly feeling toward him. It is noteworthy, however, that the believers in this idea live well north in the country. Some quite opposite ideas are held further south. Note the easy tolerance and Christian charity expressed in the views of Dr. E. G. Ferguson, of Macon, Ga., who gave utterance to the subjoined remarks at a meeting of the Macon Medical Society. He is reported as follows in the *Atlanta Journal-Record of Medicine*:

Since President Roosevelt has entertained Booker Washington, the Alabama negro school teacher, at the White House, the negro or race question has been revived throughout the country, and in this connection the characteristics of the negro may prove of much interest to many people who have never made a study of them. The black skin, as a matter of course, marks them from all other nationalities. There is the receding forehead and chin, with black kinky hair, thick lips, flat nose, large open nostrils, so much so that you can look into them as you can a cow or horse; large eyes; in the male, beardless face; a straight edge placed upon the face will not reach either the chin or nose at the same time before touching the lips. The arms are longer than in the Caucasian, and bear a close resemblance to the order of ape, chimpanzee or gorilla. The foot has no arch, but where it ought to be arched is lower than the heel and toes, so as to resemble a rocker, and in walking this imparts a motion peculiar to the race. While living in a city they will invariably seek earth to walk on in preference to pavements. The negro has protruding umbilicus or navel, closely resembling the cow, more so than any other animal, while in the Caucasian it is retracted and drawn within itself so as to not to be manifest except as an indentation on the abdomen. When a gang are at work there will always be one or more looking around as

if in fear of approaching danger. If you are having your shoes shined the nigger will rub a little and look off from his work as though something might escape his observation or take him unawares. Like a flock of geese feeding in a pond, there is always one on the watch to warn the others of danger. Like the horse, cow or dog, there is no cerumen or wax in his ear. He has small calves to his legs, the gastrocnemii muscles are without development. In a race with the Caucasian he is invariably overtaken, as the power of these muscles assert themselves in the Caucasian and are deficient in the Ethiopian. Who has ever heard or known of a negro man or woman fainting at any horrible sight that white men often and women invariably do? He has no sympathy for his fellowman or for the beast he uses. To him it has no feeling or requires no care. So long as a horse answers his purpose he employs the brute, and when it is of no longer a service from neglect, misuse and starvation he turns it out to seek its living as best it can. He is monkey-like and imitates all he sees. He rarely misses anything exposed to his view without repeating it as well as his powers of imitation will permit. These are of limited character and often he makes the most laughable and egregious mistakes. Without the least compunction of conscience he betrays the most sacred trust reposed in him. He has no regard for the truth and when the truth would answer his purpose better, he will lie. He is without gratitude or appreciation of anything done for him. Like the pet crow, he is a natural born thief. If chance offers, he will steal anything, no matter how worthless it may be to him. Virtue is unknown to him. He has no morals. Turpitude is his ideal of all that pertains to life. He can be educated to a certain degree but not beyond. You cannot make a cocoanut hold any more milk than is in it; then why expect to elevate him to the standard of the Caucasian, when there is no brain to cultivate? He is careless and negligent of his person and all his surroundings, quite willing to live in squalidness and want all of his life. His progeny are illly provided for at home and are allowed to roam at large, without restraint, and seek subsistence as best they can, growing up like any animal, as is well known to all famil-

iar with this portion of the brute creation. Knocks and kicks are his persuasive eloquence in giving guidance to the offspring of his household. As yet no case of genuine sunstroke has ever been recorded against him. Heat seems to have little effect on his physical structure; his favorite place to sleep is in full exposure to the sun's rays. He is fond of alcoholic stimulants, but, as a general thing, rarely goes to excess. The teeth are even, white and of a pearly lustre, which may be owing to the contrast the black back-ground affords. They rarely decay before advanced years. The quantity of food consumed is small in comparison to the white race, and he is fonder of the coarser articles than any of the more civilized dishes. If left to himself he will roam about all night and sleep all day. The exhalation from the skin is as characteristic as the kinky hair and the black skin, even although frequent baths are indulged in, which is the exception in place of the rule, without in any manner reducing the effluvium. So great is this that after leaving a room where he has been for a few minutes the odor will remain for hours.

More Power to Him.—There is such a general subversion of the ethical to the commercial by the editors of the newspapers of this country, that the action taken by Mr. Frank Munsey, who recently purchased and reorganized the *Washington Times*, is worthy of special commendation, and sets an example for good which it is much to be hoped may not be unheeded by other editors. In an announcement to the public, Mr. Munsey says: "There is another way of keeping a paper alive when it is not on sound business lines, and that is by running a lot of disreputable and shameful advertising—advertising that ought to put to shame any self-respecting publisher. I refer to a class of so-called medical advertisements that are carried by most of the newspapers of the country—even the respectable papers—but which advertisements are indecent and vile, and which the post-office department should compel publishers, regardless of their avarice, to drop." Mr. Munsey has, therefore, eliminated all advertising matter of this sort from his paper. This action has, undoubtedly, re-

sulted in considerable financial loss, as the *Times* was formerly a conspicuous sinner in respect to the publication of advertising matter of a disreputable character, and it is much to be hoped that this loss may be more than offset by an increased circulation among the decent and cleanly-minded of the community. There is no doubt that suggestive "medical" advertisements of aphrodisiacs, specifics for venereal diseases, preventives of such diseases and of conception, "female regulators," offers of professional services to "ladies in trouble," and the rest of the class, form one of the greatest menaces to public health and morals. They directly incite to vice by promising immunity from its consequences, which they thrust before the notice of the young and innocent. As suggested above, the whole problem is one that should receive the attention of the post-office authorities, who have it in their power to prevent this insidious debauchery of the public morals. The forcing out of advertisements of this sort from the public prints is one of the first tasks to which a politically-united profession should set itself—(*Medical Record.*)

Another Fake Game.—"For \$50 and study evenings for a few weeks," a circular before us says, "one can acquire an honorable and lucrative profession." The profession is that of osteopathy, and a "mail course," regardless of education and capacity, is to yield 500 per cent. on the investment. All the alluring arts of the "get-rich-quick" circular are used to inveigle the poor dupes to purchase the mail course.

"With the knowledge thus gained, a lucrative living is assured, for the demand for treatment by osteopathy is out of all proportion to the number of graduates in this new and wonderful science. Every osteopathic physician in the country is making money and has more patients than he can handle. If you are not satisfied with your present position or occupation, could you turn to any more promising way of making a lucrative, honorable and independent living? You need not be a slave to any man a moment longer. If you desire to rise above your present condition, you can do so. We hold the key. We have given it to others and can give it to you. A

small outlay and a little honest study evenings for a few weeks will enable you to be your own master. There is no better paying profession on the face of the globe to-day than osteopathy. Four patients a month will yield you \$100 per month, and these patients can be treated in your own home in a few minutes in the evenings—thus enabling you to continue your present occupation until you have worked up a large practice and people demand your services throughout the hours of the day."

And yet this "school" is "incorporated under the laws, etc.,," and the obtaining of money under false pretenses is a crime!—(Ed. Comment in *American Medicine*.)

Notes on Chinese Decapitation.—Dr. Oliver D. Norton, who was surgeon of the good old U. S. S. Monadnock, makes the following commentary on scenes attending a Chinese execution:

The prisoners were all placed in a kneeling position in a double row, and rather close to one another. The arms were tied behind, the queues were twisted into a knot on the head, with a tag on each queue and on the shirt. The men showed no signs of being under the influence of opium.

The sword used was about twenty-seven inches long, four inches wide and was a heavy, two-handed, chopping affair. Two executioners did the work cleanly and rapidly, and in all but three cases the heads fell at a single stroke; in two of the three exceptions the necks were only held by a small skin attachment: in the third case the blow seemed to strike about the sixth cervical vertebra and cut about two-thirds through.

Among the interesting features of the execution I noticed:

1. In many of the cases a decided effort to swallow was shown by the expression of the mouth, and the movement and downward bulging of the throat were repeated two or three times.

2. In several cases there was a pronounced attempt to articulate, judging from the labial expressions and movements. This movement was not convulsive, but most deliberate and expressive: the men were not in the act of speaking when the blow fell.

3. On close examination of the faces at the instant when the head fell, several showed a look of surprise and intelligence; this was, of course, but for a second; a natural movement of the eyes as if looking, and an opening and closing of the lids occurred.

4. There were no convulsive movements in any of the bodies or legs. The bodies fell forward, often covering the head.

5. Close examination of the facial expression impressed me with the idea that it was the face of a person in syncope; the eyes, the eye-lids, lips, color, and general expression were those of a person who was about going into a deep faint.

6. The haemorrhage from the trunk was tremendous; the carotids, during their three to six pulsations, each with diminishing force and volume, threw a stream of blood variously estimated in some cases from two to three feet. There was no spurting from the head.

I was strongly impressed with the idea that death was not instantaneous, but that it came almost immediately after the stroke and in syncope.—(*Texas Medical News*.)

A Question of Economy.—In a certain North Dakota town there are two physicians, one elderly, with a long record of cures; the other young, with his record still to make. The older doctor was inclined to surrender some of his night work to the younger man. An exchange cites an instance in which this "turning over" was attempted.

One winter's night Dr. B. was roused by two farmers from a hamlet ten miles away, the wife of one of whom was seriously ill. He told them to go to the other doctor, but they refused, saying that they preferred his services.

"Very well," replied Dr. B., thinking to put a convincing argument before them, "in that case my fee is \$10, the money to be paid now."

The men remonstrated, but the doctor was obdurate and shut down the window. He waited, however, to hear what they would say.

"Well, what shall we do now?" asked the farmer whose wife was ill.

The reply must have been as gratifying

as it was amusing to the listening doctor. It was:

"I think you had better give it. The funeral will cost you more."—(*New York Mail and Express.*)

Osteopaths, Answer.—As is well known, the osteopaths find most human diseases arise from malposition, or partial and complete dislocation of the bones, with consequent disease-producing relations of the bones and soft structures. In a person apparently osteologically perfect, great defects are found, producing most marvelous morbid results, curable, of course, by the mystic art known only to the "D.O." of reinstating the proper relations of the hard and soft parts of the body. But how about rachities, dwarfs, humpbacks, etc., who seem at least to enjoy life? Should they not all, according to the theory, have the most awful, intense and complicated diseases with the most intense sufferings known? By thorough investigation could not these diseases be found in the chronically deformed? By osteopathic treatment should not these afflicted ones be made the most happy of mortals? Nay, should they not thereby be made of normal shape and size? Why are these their brethren so sadly neglected? The clay awaits the potter's hand. The D.O.'s should have orthopedic hospitals in every city. But hospitals are not in the osteopathic line.—(Editorial Comment, in *American Medicine.*)

Myelocene in Middle-Ear Deafness.—In the *Philadelphia Medical Journal* there is a brief review of an article previously published in the *British Medical Journal*. Portions of it follow: In the treatment of deafness of middle-ear origin, Watson has used a preparation of bone marrow. His theory is that the bone marrow produces an internal secretion which is of importance to the economy and which acts as a powerful prophylactic against the injurious action of various bacteria. The substance in question he has named Myelocene. It is prepared from perfectly fresh bones from which the marrow is extracted with ether. The ethereal solution is then evaporated down and the fat is rubbed up with 1% of chloroform for

preservative purposes. The resulting substance then appears as a whitish or faintly yellow fat with an odor, partly of ether and partly of chloroform. The melting point of this fat varies widely. The author employs this substance as follows: He instills about $\frac{1}{2}$ dram of equal parts of warm alcohol and glycerine into the ear and applies the same quantity of the same mixture to the skin around the ear. This is followed by an installation of 10 drops of myelocene into the ear and the application of 10 drops to the skin around the ear. This treatment is repeated every night for six nights. Out of 20 cases treated, 4 were of a mixed type, one was of post-suppurative origin and the other 15 were purely dry middle-ear disease. Of the 15 cases in the latter class, 11 were improved, 2 showed marked improvement in one ear only and 2 were uninfluenced by the treatment. Of the mixed cases, 3 showed improvement and one did not. The post-suppurative case improved.

God Bless Her!—A nurse, like man, is born, not made. The greatest care should be exercised, without fear or favor, in accepting candidates for this important course. Simple good health, willing hands and fair education are not enough to insure the turning out of a good nurse. There is, in the first place, an undefinable something, which may call sympathetic something, which we may call sympathetic disposition, which can, under circumstances, and the absence of which cannot be compensated for by the most thorough instruction in the duties of a nurse. Where we find this quality combined with thorough training we find an ideal nurse. We do not mean a weak, sentimental sympathy, than which nothing can be more detrimental to good work on the part of a nurse, but a quality which expresses itself, not in words, but in the manner of performing even the least office for the patient—a certain something which enables its possessor to do everything for the patient as if from the promptings of good-will and sympathy, and not from measured, mercenary motives. The sick are generally hypersensitive, and are very ready to feel a perfunctory performance of duty.—(*The Hahnemannian Monthly.*)

Out of the Past.—Good old John Wesley's medical knowledge was as varied and curious as is much of the lore of his time. The *Alkaloidal Clinic* has compiled the following remedies recommended by Wesley:

For St. Anthony's fire: "Put a gallon of water (cold) on a quart of Norway tar, stir them together with a flat stick for five minutes. After it has stood for three days pour the water off clear, bottle and cork. Dose: One wineglassful every hour."

For baldness: "Rub the head night and morning with a raw onion until red, then apply honey."

For chapped hands: "Wash the hands with flour of mustard."

For lung disease: "Take no food but new buttermilk churned in a bottle, and white bread. On each morning cut up a little turf of fresh earth, and lying down breathe into the hole for a quarter of an hour."

For a dry cough: "Chew a small piece of Peruvian bark, as often as the coughing spell comes on. Swallow the piece as long as it tastes bitter."

For weak eyes: "Drop in two or three drops of the juice of a rotten apple."

For hoarseness: "Rub the soles of the feet before the fire with garlic and lard, well beaten together."

For colic: Hold a live puppy constantly on the breast. Or take, ounce by ounce, a pound or a pound and a half of quicksilver."

For a stitch in the side: "Apply treacle on toast (hot)."

Puerperal Sepsis.—Dr. H. N. Vineburg, in the *Medical News*, sums up the question of puerperal sepsis as follows: The points upon which I desire to lay especial stress are as follows:

1. Every case of puerperal sepsis is wound fever or wound infection and should be treated on the same general surgical principles applying to wound infection elsewhere.

2. Each case of puerperal sepsis, no matter how slight, should be carefully observed and watched from the outset, for we can never tell whether such a case may not develop into a serious infection which will be a menace to life.

3. When a case of uterine sepsis pro-

gresses unfavorably after curetting, irrigation and proper general treatment, as evidenced by the pulse, the temperature and the condition of the uterus, we are justified in opening the abdomen and removing the uterus, unless, after opening the abdomen, we find some condition outside of the uterus to account for the persistence of the sepsis, or if we find some condition in the uterus itself, as a single intramural abscess or a localized gangrene, which would admit of removal without ablation of the whole organ, as in cases reported by Hirst and myself.

4. When uterine infection extends to a tube or ovary, setting up a violent grade of salpingitis or ovarian abscess, the abdomen should be opened without delay and the affected tube or ovary removed.

5. When a uterine infection sets up a septic peritonitis the abdomen should be opened and the uterus ablated, the peritoneal cavity flushed with saline solution, and free drainage employed through the vaginal opening.

6. To operate for these conditions when the patient is evidently moribund is unjustifiable and can serve only to bring discredit upon the profession and upon the operation."

Feeding per Rectum.—In this month's *Canadian Journal of Medicine and Surgery* the following suggestions on rectal feeding are given: After operations upon the stomach and intestinal tract, it is often hazardous to feed the patient by the mouth for some time, and rectal feeding becomes indispensable. In cases of incoercible vomiting rectal feeding will conserve the patient's strength, until the stomach resumes its functions. It is generally recommended that the rectum should be emptied by a cleansing injection, before administering the nutritive enema. The patient is placed in a recumbent position lying on the side. The enema should be given at regular intervals through a rubber catheter, of large size, which should be introduced rather high up into the rectum. The amount of the enema should not exceed four or five ounces. The human organism requires for its sustenance albuminoids, fats, hydrocarbons and water, and we should endeavor when practicing rectal feeding to give these substances in quantities ap-

proaching as near as possible to the average quantities of waste matters eliminated by the emunctories of the body. Several albuminoid substances, such as milk, white of egg, and meat-juice, are directly absorbed from the rectum. Milk and yolk of egg also supply fat. The hydrocarbons may be given in the form of glucose, which is absorbed without change. It should be given cautiously in the enema (not over 20 per cent.) owing to the danger of causing diarrhea. The following formula for rectal feeding is proposed by Dr. Cesar Thomas, whose article appears in *Le Bulletin Medical de Quebec*:

Milk	150 grams
Eggs	2.
Make an emulsion and add—	
Glucose	30 grams
Salt	1.50 grams
Laudanum	1 to 3 drops

for one injection. Four such injections to be given each day. As the organism loses a good deal of water, it will also be necessary to give a few injections of water containing some wine. Dr. Thomas says that these daily rectal enemas represent about 76 grams of albuminoids, 65 grams of fat, and 200 grams of hydrocarbons. The patient remains in bed and takes no food by the mouth, although to relieve thirst a small quantity of water may be allowed.

Dr. Hare and the Bluecoat.—Dr. Hobart Amory Hare, a distinguished professor of *materia medica* and *therapeutics* at Jefferson College, Philadelphia, is patiently awaiting the disciplining of a policeman who wanted to climb into his automobile, and, failing in that, arrested the doctor, bundled him into a patrol wagon and later into a cell in the Moyamensing Avenue Station, where he was obliged to sit for several hours on a bench usually given over to "drunks" and tramps. The bluecoat arrested Dr. Hare near Broad and Dickinson streets for driving an automobile on Broad street faster than the law allows, a charge which the physician strenuously denied. The policeman, it is alleged, was not amenable to reason. Dr. Hare's attitude was, "Come, let us reason together," but the bluecoat swung his club and threatened. While being taken to the patrol box Dr. Hare ventured to make himself known, also the fact that he was a professor at Jefferson College, and would miss a lect-

ure for which he was scheduled. But the bluecoat, instead of relenting, spoke and acted like a man whose integrity had been tampered with. He declared that men of science were not immune where city ordinances were concerned, and that he would not hesitate to "pinch" the entire faculty of Jefferson College if necessary.—(*Exchange*.)

Better Things in Havana.—The Health Officer of Havana, Major W. C. Gorgas, Surgeon U. S. Army, has recently given much attention to the prevention of the spread of tuberculosis in that city. A sanitary census taken of the city shows the existence of 1,187 cases of tuberculosis, and these have been urged to apply to dispensaries as out-patients for relief, sleep with bedroom windows open, avoid confining occupations, and take proper precautions relative to the disposal of the sputa. Special attention has been given to the cigar manufactories in this respect, particularly since tubercle bacilli were found in cigars which had been made by a consumptive. To this end, cigar workers are required to moisten the tips of cigars, in finishing them, with sponges, instead of with the lips, as was formerly done, and work benches are placed so as to face the same way instead of toward each other. The public reader, a peculiar institution common to all Cuban cigar factories, who is hired to read newspapers, novels, etc., to the hands while at work, will in the future be required to devote a portion of his time to reading matter relating to elementary hygiene and the prevention of disease. The work is essentially educational and persuasive rather than coercive, and is meeting with hearty support from the Cubans.—(*Medical Record*.)

Causes of Abortion.—The three prime factors are, excessive sexual intercourse, displacements, and sypnulis. The illegal practice and instrumental enforcement of the doctrines of Malthus are apparently ignored, yet these in some—not a few,—communities exceed all others.—PARVIN.

Masturbation.—Apply a small fly-blister on the penis. The victim will let it alone until it gets well. Then apply another, and so on till the habit is broken.—(*Medical World*.)

BOOK REVIEWS

The Diagnosis of Surgical Diseases. By Dr. E. Albert, late Director and Professor of the First Surgical Clinic at the University of Vienna. Authorized Translation from the Eighth Enlarged and Revised Edition by Robert T. Frank, A. M., M. D. With Fifty-three Illustrations. Size 5½ by 9 inches. Cloth, \$5.00. Pages 407. D. Appleton & Co., Publishers, New York, April, 1902.

There are doubtless many practitioners who will welcome this translation of Dr. Albert's book. When it is considered that the number of works on surgical subjects are comparatively few, the value of a book of this kind is enhanced, especially when it is put before the profession in so attractive a form. Wide margins, large and clear type and careful editing are all present in this translation, making it doubly valuable to the student and the practitioner as well. Like many other German and Austrian authors, Albert is recognized as a careful worker, one who was sure of his ground before he made a diagnosis; and this system of thoughtful consideration gives weight and authority to what he has to say to his fellow practitioners.

The primary object of the book is to present to the reader some of the problems of diagnosis that confront the surgeon at the bedside of his patient. And with a view to making their solution more easy, the diseases treated of are grouped together according to the similarity of their symptoms instead of being arranged in theoretical divisions. It is the important symptoms of diseases with which the book chiefly deals. For example, in speaking of concussion of the brain the author says: "The characteristic symptoms of concussion of the brain are evi-

dently a transient condition of depression. If irritative symptoms arise, or the depression grows more profound, the condition is no longer one of uncomplicated concussion. Some other brain lesion then exists. One point requires emphasis. Loss of consciousness, no matter how transitory, must have been present if the condition is to be regarded as concussion. This, therefore, is the most distinctive sign, while slowing of the pulse is the objective symptom."

Our author gives utterance to numerous warnings against being led into too hasty a diagnosis, while he points out that in many cases of surgical diseases it is necessary to at times wait for the development of certain symptoms before a diagnosis can be satisfactorily made by the examining surgeon.

The illustrations are numerous and show the salient features of the most important symptoms of the difficulties taken under consideration in the work. These, with the clearly written and clearly printed text, combine to give a comprehensibility to the book that should make it of great value. Dr. Frank has proved to be that somewhat rare being, a good translator. The original matter has been transmitted to us in readable shape and there has been a combination of effort to turn out a book that shall supply a need of the profession. This object appears to have been accomplished.

Sexual Debility in Man. By F. R. Sturges, M. D., Formerly Clinical Professor of Venereal Diseases in the Medical Department of the University of the City of New York; Sometime Visiting Surgeon to the Venereal Division of the City (Charity) Hospital, Blackwell's Island; Member of the American Association of Genito-Urinary Surgeons, etc. Size, 8½ by 5¼ inches. Pp. 432. Cloth, \$3.00. E. B. Treat & Co., Publishers, 241-243 W. 23rd St., New York City.

Our author presents to his readers the results of his own experience as a practitioner, which has led him to conclusions somewhat different from those held by other writers along the same lines. In his chapter on masturbation he has set forth as his opinion that indulgence in the habit does not necessarily lead to physical and mental degeneration, although he states that grave dangers may result from the habit. He is also of the opinion that there are cases in which the castration of lunatics is not only justifiable, but proper, and he regards the belief that patients afflicted with spermatorrhœa are doomed to impotence and sexual uselessness as "ridiculous."

These views stamp the book as out of the ordinary, but the author bases them almost entirely on the observations he has made in a practice and experience that covers a great deal of ground, so that his word should be entitled to at least serious consideration. He has made a most careful compilation of numerous authorities and periodicals, which should prove of great value to the practitioner who wishes to investigate the subject of sexual debility for himself. And the subject matter as Dr. Sturgis has treated it, offers a clear and concise statement of matters sexual. There are, it is true, many works along this line, and it is somewhat difficult to find a great deal that is new on the subject. The chief interest of such books must be in the disproving or bettering of theories and tenets advanced by other practitioners; and in this respect the author has gone far. He believes, for example, that the lack of sexual power noticeable in old men is in general the result of excesses in youth or some other predisposing cause rather than the natural effect of advancing years. He cites the case of one old man of seventy-five who was enabled to perform the sexual act every two weeks, and this "not from any sense of

pride, but because the desire seized him."

A chapter of some length is devoted to sterility. The author takes a rather gloomy view of the possibilities of relieving this condition, saying that "in the large proportion of patients my experience has been that very little can be done, differing in this respect from the results which we are enabled sometimes to get in cases of impotency." The whole book is original and interesting. The subject matter is freshly treated and it is profitable reading.

Conservative Gynecology and Electro-Therapeutics. A Practical Treatise on the Diseases of Women and their Treatment by Electricity. Third edition. By G. Betton Massey, M. D., Physician to the Gynecic Department of Howard Hospital, Philadelphia; late Electro-Therapeutist to the Infirmary for Nervous Diseases, Philadelphia; Fellow and Ex-President of the American Electro-Therapeutic Association, of the Société Française d'Electro-Therapie, of the American Medical Association, etc. Illustrated with Twelve Full-Page Original Chromo-lithographic Plates in Twelve Colors; Numerous Full-Page Original Half-Tone Plates of Photographs taken from Nature, and many other Engravings in the Text. Royal Octavo. 400 pages. Extra Cloth, Beveled Edges, \$3.50 net. The F. A. Davis Co., Publishers, 1914-1916 Cherry St., Philadelphia; 117 W. Forty-second St., New York City; 9 Lakeside Bldg., 218-220 S. Clark St., Chicago, Ill.

To the school of practitioners who prefer the very conservative methods of medicinal and electro-therapeutical applications in the diseases of women instead of the more direct and immediate methods of surgical interference, this book will prove a welcome one. The medical profession at present seems to

be pretty thoroughly divided on the subject of conservatism in treatment and for those who advocate surgical operations for the relief of women's troubles, this book may not prove very profitable. The other wing of the profession, not inconsiderable in numbers, will find in it much reinforcement of what they have been taught to believe is the correct treatment in such cases.

Dr. Massey speaks strongly in favor of massage with the hand, saying that he regards it as the "only efficient method of using the agency in the class of cases under consideration, rejecting all machinery, muscle-beaters, etc., as either but poor substitutes for the hand of the *masseur* or as presenting an entirely different therapeutic measure." Apostoli's influence is seen in some of the work, particularly as regards surgical interference and in favor of electrical application, and the author heartily endorses the words of the well known physician.

The illustrations are of unusual interest, being done in colors from nature to a large extent, and the book is well published in general. Appendices to the work consist of a tabulation of eighty-six cases of fibromata, with details of treatment and results, and one of thirty-four consecutive cases of catarrhal disease of the uterus under electric treatment. In all of the latter improvement is noted and the majority of them resulted in cures, followed by pregnancies.

The Sexual Instinct. Its Uses and Dangers as Affecting Heredity and Morals By James Foster Scott, B. A. (Yale), M. D., C. M., (Edinburg), late Obstetrician to Columbia Hospital for Women, and Lying-in Asylum, Washington, D. C.; Late Vice-President of the Medical Association, District of Columbia, etc., etc. pp. 463. Cloth, \$2.00. E. B. Treat & Co., Publishers, 241-243 W. 23rd St., New York City.

Prefatorily Dr. Scott announces that he intends to use plain talking and this intention is borne out in the text, but it is entirely without offense, owing to the serious manner in which a serious subject is approached. The subject is undoubtedly a repulsive one, but if the information contained in this book could be more widely made a matter of knowledge, the time would presently come when it would lose most of its repulsive features. The author's intention is to provide a book which shall point out to the unthinking individual a number of facts, stripped of all glamor, which shall have the effect of making him pause to think of the consequences of a life against the laws of Nature. There is no moralizing in the book; the facts are stated and the individual is left to judge for himself the course it is best for him to pursue.

The book, aided by the calm and dispassionate setting forth of the results of observation, makes a strong plea to the manhood of men to give women more protection than is the common rule. Woman's position in society and the fact that the consequences of illicit love fall more heavily on her and on her child than on the really responsible tempter and father are set forth in such a way as to enlist the sympathies of the reader more strongly than ever with the wrongs suffered by women as the result of man's bestiality.

The causes that lead women to a life of shame and the physical and mental degradation of the inmates of brothels are treated at length. Dr. Scott sets his face firmly against the attempted regulation of prostitution in cities, believing that it is a false and inhuman scheme, designed more for the protection of libertines than for a safeguarding of the best interests of society. "Harlotry is admitted the worst use to which a woman can be put," he says, "as hanging is for a

man; and the country which goes into such a perfidious business offers a Paradise to knaves, but a Hell to women and children."

The book in general is quite unique in its subject matter and treatment and it may be read with profit not only by the profession but by the laity as well. There are some terrible lessons in it for the profligate and the woman of loose morals. It fills a vacancy that has hitherto existed in medical works. The publishers have done their part to make the book useful.

The International Medical Annual: A Year-Book of Treatment and Practitioner's Index. Twentieth Year. Pp. 663. Cloth, \$3.00. E. B. Treat & Co., Publishers, 241-243 W. 23rd St., New York City.

For nearly a quarter of a century this book has been known to the profession as a work that contained in concise and convenient form the latest and most approved methods of treating maladies, both those of interest to the general practitioner and his specialist brother. In this day of much medical writing and thought, set down in the numerous excellent medical publications, it is possible for every physician in the country to keep abreast of contemporaneous ideas. The Annual brings it before him in one book, carefully edited and compiled, so that he has the matter at his fingers' ends.

A review of the progress of therapeutics in 1901, written by William Murrell, M. D., F. R. C. P., opens this number. As usual, the new remedies and their applications are set down with references to the publications in which mention of them are made. The "Dictionary of Medicine and Surgery" takes up considerable space, being the largest division of the book, and the practitioner will here find much that, although new, still has been carefully tried by men well known in the

profession. The new applications of electricity are set down and many of the recently discovered medicaments find a place here as well.

The question of sanitary science is treated at shorter length in the back of the book, but many new and interesting facts are set forth. To the busy man who wants his medical information in a convenient form where he can put his hand on it when it is necessary the Medical Annual is of unquestioned value. The whole book is well and clearly illustrated with designs showing the more recent instruments and devices in use for the treatment of pathological conditions. The book is handsomely bound and otherwise well published.

Compend of General Pathology. By Alfred Edward Thayer, M D., Assistant Instructor in Gross Pathology, Cornell Medical College; Pathologist to the City Hospital; Formerly Fellow in Pathology, Johns Hopkins University, etc., etc., Containing 78 Illustrations, Several of which are in Colors. Pages, 314. Size, 5 x 7. Price, 80c. P. Blakiston's Son & Co., Publishers, 1012 Walnut St., Philadelphia, Pa., 1902.

This is No. 15 of the Blakiston series of Quiz Compends and the subject matter is arranged with reference to convenience in studying pathology as a general subject. The 314 pages contain the essentials of the subject and the chief points are well illustrated with cuts. The subject of malformations receives considerable attention, as does that of inflammation and repair. The author has couched his subject in simple and direct language and has avoided the use of too technical terms, possibly out of sympathy for the beginner and the student, who are expected to make the chief use of the book. Chapter XI, on Methods, takes up the matter of a postmortem examination at some length, giving also some excellent sug-

gestions of the subject of preserving specimens. The published tables of culture media, natural and artificial, staining mixtures and so on are a valuable adjunct to the book. The last chapter in the book is devoted to tables and statistics of weights and measures, some of which are of value to the beginner and the practitioner alike.

A Treatise on Pharmacy for Students and Pharmacists. By Charles Caspari, Jr., Ph. G., Professor of the Theory and Practice of Pharmacy in the Maryland College of Pharmacy. Second Edition, Revised and Enlarged. Illustrated with 310 Wood-Cuts and a Portrait Plate. Pages, 747. Size, 6½ x 9½. Price, \$4.50. Lea Bros. & Co., Publishers, Philadelphia and New York.

The second edition of Caspari's book shows improvement over the first, particularly in the matter of bringing the text down to date and in the addition of some new chapters, notably on Prescriptions and one on the Assay of Alkaloidal Drugs. The latter is of especial interest to students. The work being intended for a text-book, to a large extent, the contents are arranged with a view to facilitating study so as to give a reader the opportunity for intelligent use of the pharmacopœial texts.

Students will find the book exhaustive in its treatment of the general subject of pharmacy, though the language is refreshingly terse and to the point. The book is divided into three parts, taking up General Pharmacy, Practical Pharmacy and Pharmaceutical Chemistry. The practical side of the profession is witnessed by the frequent appearance of valuable hints on the best and shortest methods of filling prescriptions, with some sage advice on the best ways to follow in the practice of compounding. The illustrations serve the purpose of

showing the various apparatus used in pharmaceutical work and are well published. The publishers have furnished an attractive dress and admirable press-work. The book is a good one.

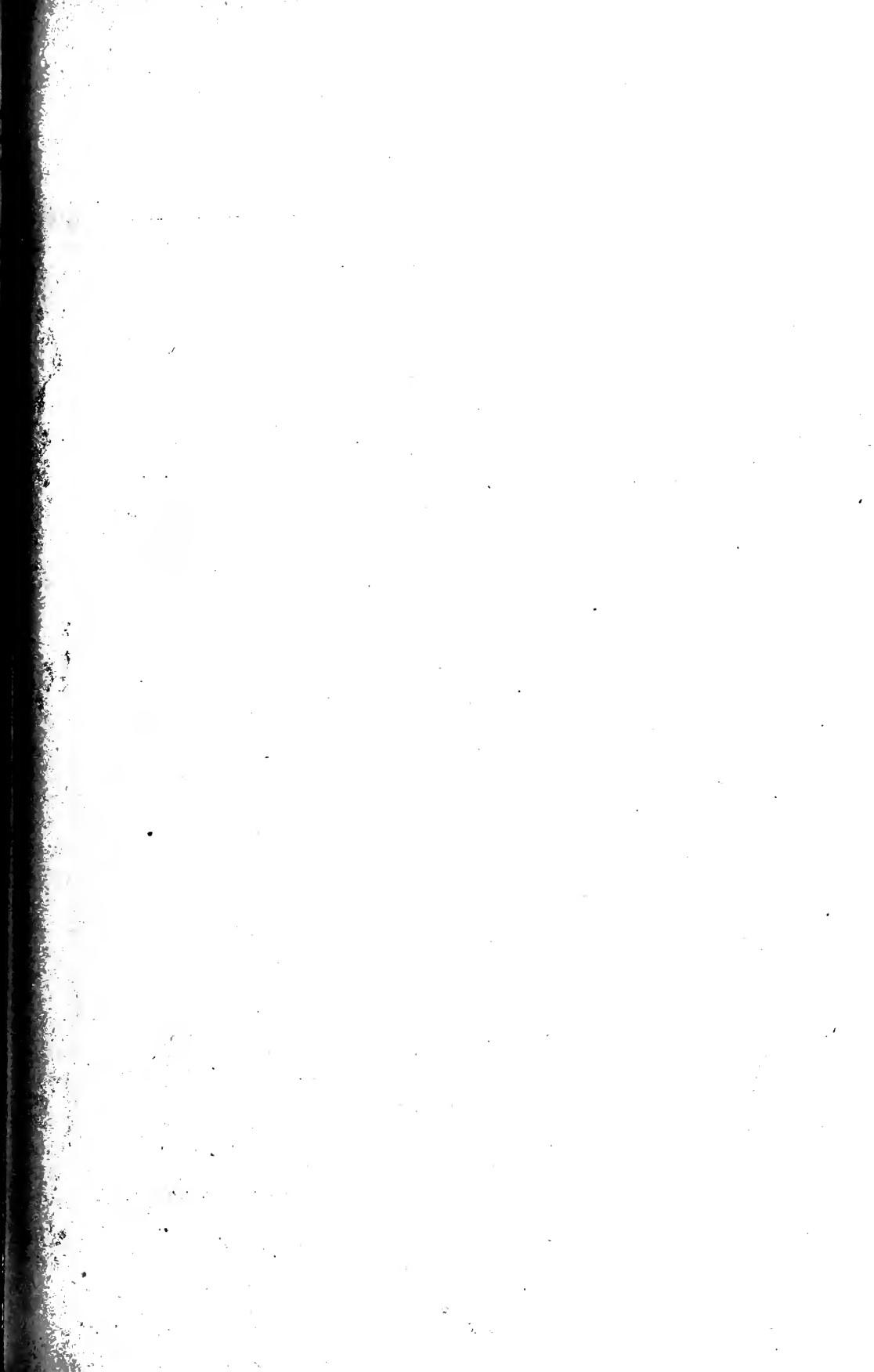
For Book-Disinfection.—That virile and interesting publication, the *Ladies' Home Journal*, makes the following suggestions for disinfecting books:

If you have an atomizer half fill it with a forty per cent. solution of formaldehyde. Stand the books upright on the end wide open with the leaves separated as much as possible, and spray thoroughly with formaldehyde. If the binding is very delicate and likely to be injured by the moisture procure a tight tin box large enough to hold the book and a saucer filled with formaldehyde. Stand the book upright as described and close the box, leaving it for an hour at least. It is said that one cubic centimetre of formaldehyde to three hundred cubic centimetres of space will thoroughly disinfect any book in fifteen minutes.

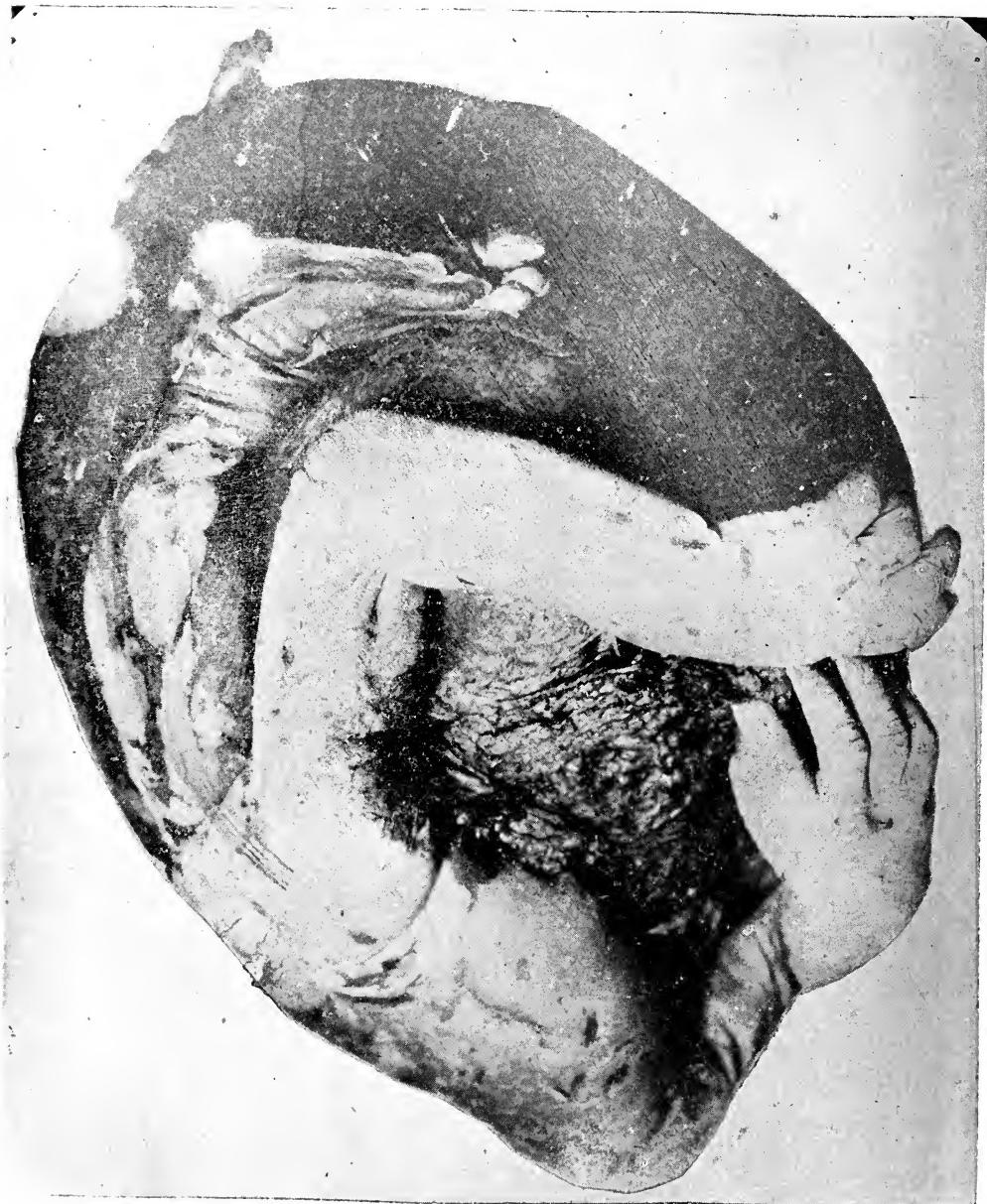
Travel Like Princes.—Those who saw the special train in which H. R. H. Prince Henry of Prussia made his tour of the United States are comparing it with other trains in regular service, and it is admitted that none of the cars in the train compares favorably with the buffet, compartment and standard sleeping cars of the Pioneer Limited trains of the Chicago Milwaukee & St. Paul Railway in daily service between Chicago, St. Paul and Minneapolis. The people of this country have the satisfaction of knowing that at any time they cannot only travel like Princes, but can get much better service.

Muscular Soreness.—Cimicifuga is a practical specific, not alone for soreness but in muscular aching or pain from whatever cause. If fever is present, its effects are much more certain when combined with aconite.—(*Montreal Medical Journal*.)

Vomiting.—Many cases of vomiting occurring in various diseases can be relieved by applying ice to the back of the head and neck. The theory is that nausea has its seat in the head and not in the stomach.—(*Dictetic and Hygienic Gazette*.)



RUPTURED UTERUS.



SEE ARTICLE "PORRO OPERATION," BY H. W. LONGYEAR, M. D., DETROIT MEDICAL JOURNAL, JUNE, 1902.
(PHOTOGRAPH BY DETROIT CLINICAL LABORATORY.)

DETROIT MEDICAL JOURNAL

ORIGINAL ARTICLES

PORRO OPERATION FOR RUPTURE OF THE UTERUS.*

BY H. W. LONGYEAR, M. D.,

Gynaecologist to Harper Hospital; President Medical Board Woman's Hospital, etc.

Mrs. F., Italian, 26 years old, mother of two children born without accident.

On April 10th, 1902, being about eight months pregnant, and suffering with a severe attack of capillary bronchitis, the membranes ruptured and labor was induced by the escape of the amniotic fluid.

A midwife first attended the case and he called Dr. J. H. Steinbrecher on the evening of April 11. A shoulder was found presenting, so the doctor attempted to turn the child, but was unable to accomplish the maneuver, although he succeeded in bringing one leg down. A condition of powerful tonic contraction of the uterus prevented any movement of the child within the organ. Dr. R. A. Jamieson then came to Dr. Steinbrecher's assistance, but their united efforts availed nothing. Realizing that surgical inter-

ference was necessary, and fearing rupture of the uterus, I was called to the case.

After anaesthetizing the patient, who was lying on a dirty goat-skin, the hairy coat of which must have been swarming with bacteria, the leg and both arms of the child were found projecting from the os. My hand was carried into the uterus between pains, which were very violent and almost continuous. A free gush of dark blood immediately appeared, and on the withdrawal of the hand the thumb was passed through a transverse rent in the uterus, situated anteriorly, at the junction of the body of the organ with the cervix and extending across the uterus and into the left broad ligament.

Abdominal section was immediately decided on and Harper Hospital notified by telephone to prepare the operating room and send the ambulance. Much to the credit of that institution and the house physicians officiating on that night, (at 2 a. m.), the patient was on the operating table within half an hour after the message was sent.

All aseptic precautions possible with the speed necessary were observed, and

Specimen exhibited and case reported at a meeting of the Detroit Medical Society, April 16, 1902.

the rapidly weakening pulse was supported by intercellular injections of normal salt solution.

On opening the abdomen and turning the uterus out, it was seen that the rupture had not extended through the peritoneum, but that the extravasating blood was rapidly dissecting up the membranes of the uterus in front, had filled the broad ligament on the left side and was forcing its way up the back behind the peritoneum.

The segments of the broad ligaments containing the ovarian arteries were quickly tied, the parts cut away, ligatures placed about the round ligament with their accompanying arteries, the peritoneal covering of the uterus was encircled and the rent brought into view. The limits of the organ removed with the child (which of course was dead) *in situ*. The left uterine artery was then sought for and found under a large mass of clots, torn completely across and bleeding freely. After securing this and its fellow on the other side the cervix was trimmed of much black pultaceous material and closed with a continuous suture of kangaroo tendon.

The next question was as to the proper treatment of the cavity of the broad ligament, which had no doubt been rendered septic by its coming in contact with the vagina, so as to allow of drainage, and do it in such a manner as to protect the peritoneal cavity. This was accomplished by sewing the edges together on each side up to the center, where an open space was left and the edges of this ring were stitched to the lower angle of the abdominal wound. A drainage tube of glass was inserted and the abdomen closed with silk-worm gut *en masse* sutures.

Before closing the abdomen the entire peritoneal cavity was flushed with normal salt solution and as much of this as the cavity would retain was permitted to remain in it. Three hours after the opera-

tion one pint of normal salt solution was given per rectum every two hours until seven pints had been used. This was all retained and absorbed. Strychnine was used hypodermatically and heat applied to the surface. Reaction was complete within four hours after the operation.

Considerable blood and serum was drawn from the tube for the first twenty-four hours. It then changed in appearance and had a foul odor. Culture of the discharge was made on the third day and it was found to contain colon bacilli in abundance, a few streptococci and a number of other germs.

The patient's temperature was nearly normal for the first two days, but with the appearance of this septic discharge it has risen and fluctuates between 100 and 103 degrees. There is no peritonitis. I expect she will eventually recover, although she is handicapped by the capillary bronchitis on one side, the constant cough of which is very distressing, and is endangering the integrity of the line of union of the incision.

The patient succumbed, suddenly, on the thirteenth day after operation, as the immediate result of an infarction in the left lung. At time of this accident her temperature was 99° and pulse 90, and recovery was looked for.

Just Hits Real Doctors.—Osteopaths, magnetic healers and Christian Scientists are not violating the law of 1901 in practicing in Washington State without passing the prescribed examination in medicine and surgery and securing the license required of physicians of recognized schools. This is the statement of the law made in an opinion prepared by Assistant Attorney-General Ross. He holds that under the law only those persons are required to pass examination and secure license who actually advertise themselves as doctors, using the title "M. D.," or publicly assume to practice surgery or medicine.—(*Medical News.*)

EXCISION OF THE TONGUE.*

BY ANGUS MCLEAN, M. D.,
Detroit, Mich.

Removal of the tongue for cancer may be partial or complete. When the disease is confined to one border of the tongue and has not extended to

the median line or septum the disease may be removed by splitting the tongue along the median line to some distance beyond the afflicted part and then excising the lateral half. Where the disease has spread across the tongue or gone to the median line or beyond it, it is always advisable to remove the tongue completely. There are several methods of performing this operation, namely, Whitehead's, by which the tongue is removed through the mouth; Kochers', by which it is removed through an incision made through the floor of the mouth along the inner side of jaw; Heatons', by which method the lower lip is incised in median line and the jaw separated at the symphysis and an incision made along the median line. The Whitehead or Kocher method is the one mostly chosen. When the submaxillary lymphatic glands are affected, removal through floor of the mouth is more satisfactory as it gives an opportunity to remove the glands. When the glands are not affected and the disease is well confined to the tongue removal through the mouth is selected.

For this method of removal I have devised a knife for severing the tongue at or near the base which is a great advantage over the scissors or straight knife that is



ordinarily used. This knife has a razor shaped blade hung at a right angle to the handle with a right lateral cutting edge. The tongue is transfixed with heavy silk threads, and then drawn well forward and against the floor of the mouth; this gives a good view of the dorsum and the knife can be passed into the mouth and the tongue severed at the desired point leaving a clean cut stump which it is impossible to obtain with the ecraseur, scissors or ordinary knife.

The tongue should be first freed from the lateral borders and floor of the mouth by scissors or ordinary knife.

When scissors are used to amputate the tongue they have to be used from beneath the tongue and the tongue elevated; after the first incision free bleeding takes place and the field of operation is obscured. When the tongue is pulled well down and forward the lingual arteries are stretched and compressed and the haemorrhage is much less with the tongue in this position than when elevated.

I have used this knife in two amputations of the tongue with great satisfaction.

Absence of Vagina.—Dr. Samuel Johnson Stewart, of Seattle, Wash., reports the following case in the *Medical Sentinel*: Mrs. D., married, 28 years of age, of medium height; thin of flesh, masculine breasts and hips, vulva and clitoris normal, hymen absent; fourchette well developed; a cul de sac 2.8 c. m. in depth, apparently formed by the continued assaults of the male organ, exists in the location of the vaginal os.

Examination, under complete anaesthesia, per rectum, demonstrated the absence of the uterus, tubes and ovaries—a small nodule, about 2 c. m. in diameter, situated between the rectum and bladder seemed to represent the termination of the genital cord. The patient claims to have keen sexual desires; but signs of ovulation or menstruation are negative. Her temperament is decidedly of the nervous type, and her character, voice and face are quite juvenile.

*Written for the Detroit Medical Journal.

USE OF THE ALTER DILATING NASAL SPLINT.*

BY FRANCIS W. ALTER, M. D.,
Toledo, Ohio.

Late Resident Surgeon New Amsterdam Eye and Ear Hospital, New York City, Oculist and Aurist to the Toledo Hospital, Member of the American Medical, the Western Ophthalmologic and Otolaryngologic, the Toledo Medical and Northwestern Ohio Medical Associations. Member and Secretary Lucas County Medical Society.

That the use of an adequate splint contributes materially to the success of the usual operation for deflection of the septum no one who has operated on this class of cases will question. Now, while the splints generally in use have been well thought out and are used with more or less success, yet as a rule they possess insufficiencies which are to my mind of such a vital character as to militate against the success of the operation in a large percentage of cases.

The instrument illustrated in this article, the mechanism of which is peculiar to itself, seeks to obviate some of the objectionable features possessed by other instruments; and at the same time some new features are introduced in it, which I feel confident will aid materially in insuring a large proportion of success in operations of the character mentioned.

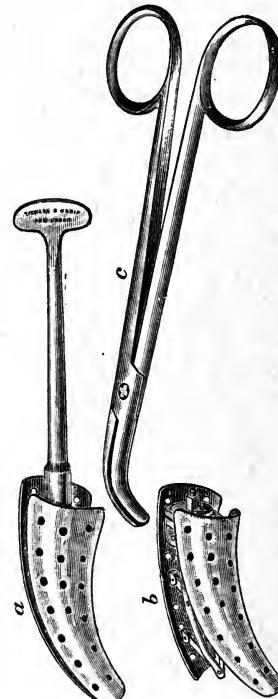
I wish to emphasize the following favorable features of this device:

First—The drainage permitted by the outspreading halves when the instrument is in situ is maximum, and such a thing as clogging never occurs, thus fostering that much desired factor of success—good drainage. Moreover, the breathing through the formerly stenosed nostril is at once established and the satisfactory effect to the patient as well as to the surgeon is immediately in evidence.

Second—In the removal of the splint for the cleansing process, a few turns of the key reduce the splint from size b to size a (see cut) and the splint may be

removed from the nose and subsequently replaced without the accompaniment of the pain usually present when this manoeuvre is attempted with the splint in general use.

Third—The distal and the proximal end of the splint dilate equally. This feature is of the utmost importance, especially when the deflection is situated somewhat posteriorly.



Fourth—Drainage being good, irrigation when the splint is in position can be successfully carried out. It is, of course, necessary to take proper precaution that the patient's head is well forward and to instruct him against swallowing while the medicament is administered with a moderate velocity. There is no need of the daily removal of the splint, and I leave it in position for five days, then remove it and replace it again for a like period. At the end of ten days it may be entirely removed. If, on its first introduction, too much or too little dilatation has been effected, a few turns of the key will readily produce the amount desired.

*Written for the Detroit Medical Journal,
June, '02.

The daily removal of the splint carries with it certain ill effects, and the same arguments against the daily removal of the dressing on a broken limb also hold good here:

Whether we employ Asch's scissors, Steele's or Roe's septum forceps (the latter being quite ideal, fracturing without undue laceration) or some one of the many instruments on the market, the object of all of them is the same. What is sought after is the establishment of sufficient plasticity of the septum, at the site of greatest deflection, to admit of its being pushed into the median line. The question of adequate support then becomes one of vital importance.

A splint that has sufficient width at its distal end, which admits of modifications in size to conform to the needs of the case in hand, and which can be worn a sufficient length of time with comparative comfort and safety, meets the several major essentials in this regard. The splint which I present has been used by me in a considerable number of cases, has given me unqualified satisfaction, and I can recommend it with full confidence that it will meet every indication. It is made by the J. F. Hartz Co., at Detroit.

338 Summit St., Toledo, Ohio.

Painful Conditions in Small-Pox.— If the pain in hands or feet be very severe it may be necessary to immerse the members; if the pain be more general it may be necessary to keep the patient for a good part of the day in a whole bath. When the crusts begin to come off, carbolized vaseline should be used very freely for inunctions. For variola verrucosa, the form which leaves warty elevated lesions after the disease has run its course instead of the usual pits, applications of tincture of iodine are good. A 20-percent. resorcin solution in rosewater has also been known to do good.—(*Medical News.*)

CASE OF BULLOUS KERATITIS, DEVELOPING AFTER HERPES ZOSTER AND IRIDO-CYCLITIS.*

BY B. W. PASTERNACKI, M. D.
Detroit, Mich.

Towards the end of last March I was called to attend Mr. M. P., 52 years old, foreman at the car shops, who gave me the following history: "About four weeks ago I had an attack of severe pain in left side of face and head. In about two days my face became red, swollen, burning and painful; at that time I consulted a physician who prescribed for me saloc and different applications, consisting of lotions. About ten days later I had severe pain in my left eye, which was treated with drops."

Four weeks after the first attack I was called to attend to his eye on examination of which I found the following: Diffused redness of conjunctiva, lacrimation, pupil irregular; iris: absence of the lustre normally present, exudation upon the anterior surface of it, pus upon the bottom of anterior chamber, dimness of cornea with epithelium and Bowman's membrane partially elevated in region of the pupil; size 6 mm. long, 4 wide, oval shape, elevated epithelium, transparent, appeared as if recently bursted; on touch with probe and cotton, the epithelium was easily removed.

Anæsthesia of cornea, T. normal partial ptosis of lid; on side of the nose along the sensory nerve fibres of the Trigeminus; distinct cicatrices due to atrophy of the deeper layers of skin which at once put me in mind of Herpes Zoster.

The formation of bullæ or the elevation of epithelium with Bowman's membrane in this case, as I could observe, has occurred three times in succession, each time about six days apart.

Treatment consisted of Atropin, 1%, Cocain, 2%, dusting with iodoform and

*Read before the Detroit Ophthalmological and Oto-Laryngological Society, May 16, 1902.

bandage, touching the erosion with I to 5000 Bi-chloride sol., and warm applications. When this treatment was followed out the erosion became smooth and appeared to be covered with epithelium in about thirty-six hours.

I think that this case is very interesting because it is rare. It is the first of this kind observed by me in six years. I have seen a case similar to this in Galezowski's clinic in Paris.

Schoeler says that the bullae recur so frequently because of the fact that on account of the fast regeneration of epithelium the erosion which is chemically unclean and the small particles are not cast off from its surface will not allow the epithelium to adhere to its place. On motion of the lids the epithelium will be pushed off from its seat.

Therefore he claims that it is good practice to wipe the denuded spot with chlorine water. Prof. von Reuss, in Vienna, found in those cases Bi-chloride sol. I to 5000 very useful.

254 Canfield Ave. E.

Unsatisfactory all 'Round.—A well-known Brooklyn physician of Spanish extraction has not yet mastered the intricacies of the pronunciation of the English language. Some time ago the doctor had occasion to send a specimen of urine for chemical examination to a druggist who attends to this work for the physician. A servant was dispatched with instructions that the druggist should "taste" it. The fluid was in an ordinary wine bottle, and the German druggist eagerly swallowed a good-sized draught, and immediately declared it to be the worst wine he had ever had the misfortune to sample. When the doctor informed him that it was a specimen to "test" chemically, the druggist was enlightened but not satisfied.—(*Medical Record.*)

French Cynicism.—"Le mariage est un poison dont la dot est l'antidote" (marriage is a poison whose antidote is the dowry).—(*Montréal Médical.*)

Phototherapy in Small-Pox.—From the *Medical News*: Very long ago, in the fourteenth century, John of Gaddesden recommended red curtains and red walls for the rooms of small-pox patients. Sunlight was thought to aggravate the symptoms. A dark room was advised, partly, of course, because of the photophobia so common in the disease. When the treatment was first applied air, as well as light, was excluded from the room and the patient was nearly smothered. Part of the theory on which the supposed aggravating effect of light is founded, the fact, for instance, that the hands and face are not apt to suffer so severely, is not substantiated. The feet are apt to have as many lesions as the hands. Unna and Finsen showed that it was not the heat of the sun, but the ultraviolet rays of the spectrum which affected the skin and caused sunburn, while the use of red light was soothing for cutaneous lesions. Finsen has employed red light in the treatment of small-pox and has reported a certain number of cases with excellent results. At times the disease skips from the vesicular stage to convalescence, and especially without the severe secondary symptoms of the postular stage. Red light was tried at the Riverside Hospital on North Brothers Island, but, the results proving unsatisfactory, it was given up. In 1893 red windows were put into one of the wards, but this seemed to have no effect, for, while all the cases were mild, this was usual in the epidemic of that year and all of them ran the usual complete course of typical small-pox cases. Dr. Cyrus Edson has data with regard to this experiment, but owing to the fact that it was a failure has not published the results. It is perhaps unfortunate that it is always the enthusiast who writes on medical topics, while the skeptic and unsuccessful experimenter remain silent; the profession, however, should be enabled to know both sides.

More Jewish Charity.—It is said that Mrs. Morris Rosenbaum has donated \$25,000 to the Home for Aged Jews. This money will be spent in erecting a fire-proof hospital, 40 by 60, which will be fitted out by the daughters of Mrs. Rosenbaum.—(*Medical News.*)

SURGICAL NOTES IN THE FAR EAST.*

BY HAL C. WYMAN, M. S., M. D.,
Professor of Surgery, Michigan College of
Medicine and Surgery, Detroit.

Singapore is the important city of the Malay peninsula and archipelago. It is a center or rendezvous for tropical diseases. Beri-Beri is frequent there and elephantiasis is abundant. When the parts affected by lymphstasis, characteristic of the latter disease, become so large that they seriously interfere with locomotion, the native will sometimes submit to an operation for their removal. In scrotal elephantiasis amputation is made with great difficulty, owing to the great hemorrhage which is encountered. Dr. Thomas, Professor of Surgery in the Medical College of Ceylon, has had marked success with this operation and is much sought for his judgment in elephantiasis.

That singular neurosis, Beri-Beri, may be seen in the great hospitals at Singapore. There are two types of the disease—one characterized by flabby heart and dropsy, and the other by paralysis of the extremities. A patient with either form of the disease is likely to recover if properly treated, but the malady is fatal in many instances.

That faulty nitrogen assimilation has an important influence in causing this disease is common belief among medical men who treat it. But one must not forget that *place* influence is likewise an important factor in spreading it. Paracentesis of abdomen and chest are often practiced to relieve the dyspnoea, one of the most dangerous symptoms in Beri-Beri.

There appears to be little use in trying to cure the disease in the place at which it is contracted. The poison, or whatever is the cause, continues to infect and overwhelm the patient until he is removed to another *place*, more or less re-

mote from the locality in which he was attacked—even if it is only to other quarters in the city, village, house or ship.

Fungus disease of the extremities are not rare. Madura foot, which frets and weakens the patient until he or she dies of exhaustion, may be seen in almost any of the hospitals. It is a mycetoma and develops at the seat of some trifling abrasion or wound of the foot. People who wear shoes and stockings are not likely to get it. Some of the cases I saw looked like melanotic sarcoma. All the tissues of the foot were involved and the black granules appeared in clusters and bunches, springing from the ligaments and bones. The microscope shows abundant ray-like fungi, mingled with much granular tissue. Amputation is the remedy. Recurrence does not take place. The shrunken, useless limb, and the foetid fungus granulomatous foot make a picture very depressing to the patient, so that he readily consents to amputation, after he has satisfied himself that cuds of well-chewed betel leaves, areca nut and lime—the popular remedy in that country for local ills, will not cure the disease.

Tuberculosis of any of the tissues of the body is very much more prevalent than it is in the western countries. I saw a great many cases of hip disease and Pott's disease which had undergone spontaneous cure; many of these individuals were beggars and the deformities incident to the diseases formed a valuable asset to the mendicants. There were a great many operations in the hospitals for bone and joint tuberculosis. They generally consisted in troughing the long bones with a mallet and gouge and incision and erosion, with subsequent drainage of the joints.

There were some cases of tuberculous diseases of the mammary glands, which were distinguished from cancer-

*Written for the Detroit Medical Journal.

ous affections of that organ by the longer and slower progress of the malady. Most of the hospitals have well-equipped pathological laboratories, in which specimens are examined for the purpose of confirming a diagnosis already made by other means or methods. One case in particular, of the tendon sheaths, which was at first supposed to be due to some obscure fungus disease of the forearm, was afterwards determined to be tuberculosis by a microscopical examination.

It was treated by excision of the skin and the overlying fascia and a careful scraping away of the infected tuberculous tendon sheaths. All the superficial tendons on the anterior aspect of the forearm were this way exposed.

Cancer is quite rare in hospital practice. Dysentery is very common and very serious in its after-effects. Stricture of the rectum and colon, due to this disease, were occasionally encountered, and some work was being done along the lines of proctotomy and colotomy for their relief.

46 Adams Ave., west.

(Dr. Wyman has recently returned to Detroit after an extended tour of the tropical regions, where he devoted considerable attention to the study of tropical diseases at home. The general remarks made by him above are of value and interest, coming to us, as they do, at first-hand.—Ed.)

Canadian Soda Lakes.—The mineral production of Canada during 1901, according to the geological survey, was valued at \$69,407,031, a growth of 8 per cent. over 1900. Unusual mineral discoveries have been made in the Canadian Northwest. Among these are mentioned a natural soap mine, a paint mine, and several soda lakes, whose bottoms and shores are encrusted with a natural washing compound.—(*Philadelphia Medical Journal.*)

EXTRA—GENITAL CHANCRE.*

BY F. B. TIBBALS, M. D.

We may divide syphilitics into two groups—one in which the initial lesion is located upon the genitalia and the modus operandi of infection that of sexual intercourse; the other, where the chancre is located upon any other part of the body except the genitalia and the infected individual frequently guiltless of any immoral act. Recent medical literature teems with cases of syphilis of the innocent, and we must in a measure recast our conception of syphilis as a venereal disease and classify it among the acute contagious diseases dangerous to public health. If tuberculosis, which is but rarely contagious, is to be regarded as a menace to public safety through a possible transmissability, how much more need is there of isolating the syphilitic, regarding the virulent poison of whose secretions there is no question.

The bacteriology of syphilis is not yet clearly worked out. Lustgarten has isolated a bacillus which he considers the cause of the disease, while other observers find other bacteria present as the contagious element; and as yet the claim of no discoverer can be regarded as proven, although no one doubts the bacterial origin of the disease. When once the contagion has gained access to the blood through an abraded epithelium, systemic infection results almost immediately. Cauterization of an abrasion, even within six hours after suspicious intercourse has failed to prevent subsequent systemic infection. Contagion is carried by the germ present in the discharge from syphilitic lesions and also in syphilitic blood. Hence it follows that a syphilitic is dangerous both while he has lesions of the mucous membrane or skin and also so long as his blood contains the poison which manifests itself in renewed out-

*Read before the Detroit Academy of Medicine May 13, '02.

breaks of symptoms, authentic infection from even tertiary lesions being reported, as well as from the cadaver.

Too much emphasis cannot be laid upon the danger of innocently communicating the disease and patients should be taught to be extremely careful in the management of their personal effects, since in many cases of extra-genital infection the virus may be carried by some article of everyday use, such as a glass, spoon, cigar-holder or pipe, tooth-brush or towel.

The cases which I have chosen to report are all of this type.

I. Chancre of the Ankle—A railroad brakeman whom I attended for a week or more because of a crushing injury to one or two toes. At the first dressing I noted a slight abrasion of the skin over the instep, but applied no dressing to it other than a bandage. Two or three weeks after I ceased attending him, he appeared at my office with a large indurated ulcer on the instep at the point of abrasion, a beautifully typical Hunterian chancre. Inquiry disclosed the fact that he had dressed the ankle with a carbolized vaseline belonging to his roommate, who was also applying it to a sore on his penis.

II. Chancre of the Lower Lip—This case occurred in a well known actress who had become infected through a trivial fissure on her lip. The only possible source of infection was through her maid, known to have some venereal disease, whom she had caught using her cold cream.

III. Chancre of the Tonsil—The well known work of White and Martin says: "Chancre of the tonsil and fauces is rare and, when found, so masked by concomitant inflammatory symptoms that diagnosis is impossible." With this authority I excuse my failure to diagnose this case during the primary stage. P. H., a young man, consulted me last November

for a simple follicular tonsilitis of a week's duration. Ten days later I saw him again with an inflammation of the same tonsil, very severe in character. The whole tonsil and back of the throat was swollen, with a grey-white membrane extending over the tonsil and onto the uvula. I considered this infection diphtheritic, but two cultures were negative as to Klebs-Loeffler bacilli. Many streptococci were present and I gave him antitoxin, as I frequently do in cases reported as streptococcic infection, but in this case without any appreciable benefit. In spite of, as much as the result of, treatment, the acute symptoms subsided in about two weeks, but the throat remained sore and painful on deglutition, for 30 days longer. Meantime he developed a marked induration of the glands at the angle of the jaw, and later, general lymphatic involvement and a slight macular rash cleared the diagnosis. Dr. Wadsworth Warren saw him on the morning that I announced my conclusions, concurred in the diagnosis and materially aided in clearing up the throat symptoms by treatment locally. The case is now progressing nicely under systemic treatment. The infection is clearly traceable to a brother, who, in the early secondary stage, surreptitiously used his tooth-brush, the poison gaining ready access to the tonsillar tissues during his simple tonsilitis.

Let me, in closing, narrate a case of supposed extra-genital infection that was not. A young man consulted me, with the statement that a girl at the house in which he boarded was "stuck on him" and he had gotten disease from her. Noting my glance directed toward the usual location of such maladies, he anticipated my request by saying, "No, not that—I have never had anything to do with her."

Pressed for an explanation of an apparent inconsistency, he said that, sup-

ported by high moral ideas of right living, inculcated in early youth, he had remained obdurate to the maiden's suggestive advances and thus driven her to extreme measures. Hence, at her previous period, she administered a love potion in the form of menstrual blood as a dressing upon a well chosen beefsteak, an apt illustration of the feminine belief that the way to a man's heart is through his stomach. The only acknowledged effect of the love potion was a marked preference for a vegetarian diet and I at last convinced him that, even if the girl were syphilitic, infection by the menstrual flow through unbroken mucous membranes was so nearly impossible as to be highly improbable.

99 Cass St.,
Detroit, Mich.

Health Board Work.—The discovery of a method of securing prompt and accurate returns of births and of contagious diseases is greatly to be desired. It is comparatively easy to secure returns of deaths by preventing the interment of human remains without permits issued by the Health Department; registration of the death is effected by the application for the burial permit. No such method can be applied, however, to returns of births. The fact that a given child is born does not come to the knowledge of the registering officer unless its birth is registered, and the absence of registration does not ordinarily come to the knowledge of the family and of neighbors who are aware of the birth. Some states have endeavored to secure more nearly complete returns of births by compensating the person making such returns, but with what success it not known.—(*Philadelphia Medical Journal*.)

Quite Right.—Quality and not quantity must be the watchword of a dignified medical journalism, as of a dignified lay journalism.—(*Boston Medical and Surgical Journal*.)

ACETOZONE: BENZOYL-ACETYL-PEROXIDE.

BY R. H. PAGE,
Detroit, Mich.

The application of an organic peroxide as a germicide is the result of an investigation of certain well known phenomena, which have hitherto never received thoroughly satisfactory explanations. The consideration of these established facts, and of the various hypotheses put forth to explain the mechanism of the reactions involved, led Dr. Freer and Dr. Novy of the University of Michigan to take up a joint research with the object of gathering additional information which might throw a clearer light upon a subject of absorbing interest. While the work was inspired by purely theoretical considerations, that it should have brought forth results of immediate practical value is surely a matter of congratulation.

It is unnecessary here to enumerate the divers phenomena—which now appear more closely related—which contributed to the complexity of the problem. It will suffice to mention two of the most interesting changes which certain media undergo upon exposure to sunlight and air.

It has been observed that urine, upon exposure to air and direct sunlight, becomes completely sterile, and that gelatine, which, in the normal state, is a suitable medium for the propagation of germs, often undergoes a similar change, attaining such strongly antiseptic properties as to inhibit the growth of strongly resistant bacteria. The fact that strips of gold, and of some other metals, when laid upon previously infected gelatine induce this antiseptic property within a certain definite zone, and that this property is retained by the gelatine after the strips of metal are removed, are among the interesting considerations which led to the still unfinished research of Drs. Freer and Novy.

To revert briefly to the change which

urine undergoes upon proper exposure, it has been shown that the reaction gives rise to some body or bodies which give the ordinary tests for peroxides. The germicidal value of hydrogen-peroxide was very accurately determined, and it soon became evident that the strongly antiseptic properties apparent in the urine, and in the gelatine, could not be entirely accounted for by assuming the small amounts of peroxide present to be hydrogen peroxide. To what, then, is this property to be attributed? As the only cases of this autosterilization, if one may coin the word, so far observed, have occurred in organic media, the most natural answer is obviously "to organic peroxides." This brings us then to the first step in our investigation—the study of organic peroxides from the chemical and bacteriological standpoint.

It is not the purpose of this paper to take up the vast amount of work carried out in Dr. Novy's laboratory on the germicidal properties of the various organic peroxides studied, nor to dwell upon the clinical application of benzoyl-acetyl-peroxide, reports of which are beginning to appear in the various journals of medicine and dentistry. It was the writer's good fortune to become associated with Dr. Freer as assistant at the inception of this work and to become actively concerned with this interesting class of bodies. It is, therefore, but a brief sketch of the chemistry of peroxides, and of benzoyl-acetyl-peroxide in particular, that is contemplated. The work has been vigorously prosecuted since the writer left college, and much that is new and interesting has been brought to light.

The subject of oxidation, especially of organic bodies, has attracted so much attention of late years, and promises to eventually clear up so much that has hitherto remained obscure, both in the field of chemistry and biology, that one is tempted to review the masterly con-

tributions of Baeyer, Engler, Bodländer, Nef, Michael, and a number of others. Suffice it to say that their work has demonstrated that in the majority of cases studied, oxidation proceeds stepwise; i. e., one molecule of the substance in question first takes up sufficient oxygen to form a peroxide, and that this peroxide then breaks down to a less highly oxidized body, transferring one-half of its oxygen to a second, previously unoxidized molecule. In other words, one molecule acts as an oxygen carrier, another as an acceptor. Thus in the oxidation of pure benzaldehyde, Baeyer⁽¹⁾ has shown that during the course of the oxidation, some peroxide is always present, though when the reaction is complete, only pure benzoic acid remains. He has isolated the benzo-peracid, C₆H₅.C.O.O. O.H, and has shown that when mixed with an equimolecular quantity of benzaldehyde, the whole mixture turns to a mass of pure benzoic acid, which no longer gives a peroxide reaction. My space is too limited to detail the methods by which the processes of oxidation have been checked or accelerated in order to gain a clearer idea of their progress. Suffice it to say that this primary formation of peroxides has been demonstrated to be a fact.

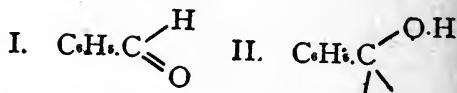
It has been said that these reactions have been accelerated or retarded. What then is the condition governing the peroxide formation? If, e. g., the formation of peroxide can be accelerated in a mixture of benzaldehyde and acetic anhydride, then the accelerating substance must either effect the state of the oxidizing agent—in this case atmospheric oxygen—or else the state of the body to be oxidized—the benzaldehyde. In other words either the molecular condition of the oxygen or of the benzaldehyde must be altered. If a current of air be passed through a mixture of benzaldehyde and acetic anhydride at ordinary tempera-

tures for twenty-four hours or more, at no time can more than a trace of peroxide be detected in the mixture. If now a piece of glass be wet with the mixture and allowed to drain, in the course of three minutes or so a thin layer of crystals is formed, a strong odor, somewhat resembling hypochlorous acid, is noticed, and the presence of considerable quantities of a peroxide may be proven. The conclusion is forced upon us that the glass surface coming in contact with the oxygen of the air has induced this marked acceleration of the reaction. Other surfaces have been shown to possess this property in a much higher degree. Thus bits of iron, zinc, tin, and especially magnesium, when introduced into such a mixture, through which air is being aspirated, promptly bring about a marked increase in the rate of peroxide formation.

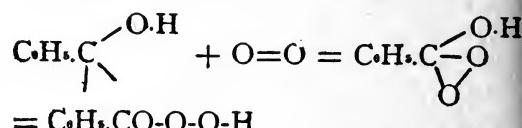
It is well known that certain metals such as palladium, platinum, etc., have the property of absorbing considerable quantities of inert gases such as hydrogen, and liberating them in a more active condition, thereby inducing reactions which under ordinary circumstances take place with such extreme slowness—if at all—as to be imperceptible even after a lapse of months. The cases in which oxygen is similarly rendered active are very few—the new catalytic process for the manufacture of sulphuric acid being the most notable example. One of the most interesting results of this research has been the discovery that metals which show no tendency to absorb gases, render active molecular oxygen in contact with their surface. The only explanation of this phenomenon that suggests itself is that the oxygen is occluded on the surface of the metal or other catalytic agent, and that through this occlusion it is in some way rendered active by a partial or complete rupturing of the molecule.

The other alternative, viz., the render-

ing active of the body to be oxidized, e.g., benzaldehyde, is worthy of serious consideration. Indeed, it is of great value in explaining the mechanism of the reaction. Without attempting an adequate discussion of the far reaching theory of desmotropy, which has been developed and supported by the classical work of Baeyer⁽¹⁾, Schiff⁽²⁾, Bodländer⁽³⁾, Michael⁽⁴⁾, and others, an illustration may not be out of place. It is assumed that in the case of benzaldehyde, for instance, an equilibrium exists between the two forms



The strongly unsaturated character of II—the enol form—would indicate a strong tendency to addition; in the case of oxygen as follows:



yielding the benzo-peracid, a body isolated by Baeyer⁽¹⁾, and shown by Clover in the course of this research to react quantitatively with acetic anhydride to form benzoyl-acetyl-peroxide. Whether the change from keto- (I) to enol- (II) form is accelerated by these various catalytic agents, thereby causing a larger proportion of the more active desmotropic modification, as well as the activity of the atmospheric oxygen increased, is not clear from these reactions alone. However, a careful study of the effect of these same catalysts in the condensation, without oxidation, of benzaldehyde and acetic anhydride, has indicated that such is the case.

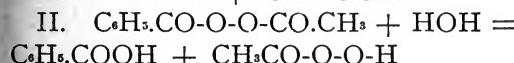
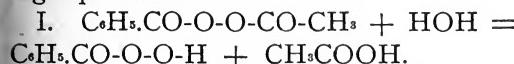
Before leaving the synthesis of ben-

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1. Ber. d. Chem. Gesell. Vol. 33, p. 1582.
 2. Ber. d. Chem. Gesell. Vol. 31, p. 205.
 3. Ahrens Vorträge, Vol. 3, p. 471.
 4. Jour. prak. Chem. Vol. 60, p. 75.

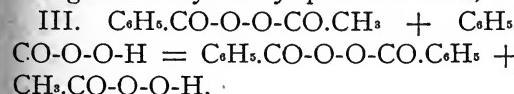
zoyl-acetyl-peroxide, it may be well to mention some of the substances which have been found to promote the reaction. Magnesium, iron, tin, platinum, filter paper and cloth have all proved valuable as catalysts. This view of the effect of various surfaces on the activity of oxygen may throw some light on the change of hemoglobin to oxyhemoglobin in the lungs, where large surfaces of tissue—a possible catalytic agent—is exposed.

Having thus touched briefly upon the synthesis of benzoyl-acetyl-peroxide, let us turn our attention to its decomposition. As various reagents split it up in different ways, it is sufficient here to consider only the simple hydrolysis it suffers in water solution.

Without detailing the numerous experiments which have led to a clear understanding of the action of water on benzoyl-acetyl-peroxide, it may be said that the hydrolysis has been shown to take place in the following manner. Water splits the molecule in two different directions, as represented by the following equations:



The reaction proceeds with greater ease according to equation II. The benzo-peracid formed in I. reacts with still unchanged benzoyl-acetyl-peroxide thus,



The dibenzoyl peroxide formed, as in III. is insoluble and produces a milkiness in the freshly prepared solution—which is at first perfectly clear—finally settling to the bottom as an insoluble white powder, leaving the supernatent solution again clear. Mr. Clover during the course of this research followed the reaction through quantitatively and showed that of four molecules going into solution,

one hydrolyses according to I., two according to II., and one unhydrolysed molecule reacts according to III. So that in the completely hydrolysed solution we have present aceto-peracid, or acetyl-hydrogen peroxide, together with small quantities of benzoic and acetic acids, with possibly a trace of the benzo-peracid of Baeyer. It is therefore demonstrated that the active germicidal agent is not benzoyl-acetyl-peroxide as such, but acetyl-hydrogen-peroxide, $\text{CH}_3\text{CO-O-O-H}$, one of its hydrolytic products.

Another phase of the decomposition of this peroxide which may be of interest to those who have occasion to work with it, is that which the body undergoes in exploding. All the organic acyl peroxides which have thus far been studied are more or less explosive. It has happened that in the distillation of old ether which has been exposed to air and sunlight, or has stood in contact with hydrogen-peroxide, violent explosions sometimes occur. This is undoubtedly due to the presence of diacetyl-peroxide, quite the most explosive of any of this class of bodies so far isolated. As heavier radicals are substituted for the hydrogen atoms of hydrogen peroxide, the explosive properties diminish, until in the case of dibenzoyl-peroxide the tendency to explosion is no longer very pronounced.

When benzoyl-acetyl-peroxide is heated gradually, unconfined, it slowly decomposes with the evolution of gas. Analysis of this gas proves it to be composed of 75% carbon dioxide and 25% of methane. Quantitative measurements show that from every two molecules of peroxide, four molecules of gas are evolved, three of CO_2 and one of CH_4 . The residue is complex, and consists of a mixture of high boiling hydrocarbons, benzoic acid, and other unidentified constituents. What the decomposition upon explosion produces, it is at present impossible to say, but that it involves a still more com-

plete rupture of the molecule, giving rise to much greater volumes of gas seems certain.

Owing to the violence of the explosion, it has only been possible to work with small quantities, and there is yet opportunity for considerable work along this line. The following information has, however, been obtained regarding the conditions causing explosion. Small quantities when heated gradually in the open do not explode, but begin to quietly evolve gas, the evolution increasing as the temperature rises, finally diminishing until there remains only an inexplosive oil. If, however, small quantities be suddenly raised to a temperature of about 85°C. explosion almost invariably results, even though the substance is unconfined. I have never been able to produce explosion by heat alone, below this temperature, though it must be remembered that the quantities employed were small, and hence the effect of lower temperatures upon larger masses cannot be foretold with certainty. Pounding, or grinding the material between rough surfaces, also induces explosion.

While with proper precautions, pure benzoyl-acetyl-peroxide may be handled without danger, Messrs. Parke, Davis & Co., who have undertaken its manufacture on a commercial scale, have deemed it desirable to ward against any possible accidents, by incorporating it with a diluent. Dr. Francis has carried out in their laboratory a series of experiments looking to this end, and has, I am told, met with considerable success by producing an intimate mixture with infusorial earth, a thoroughly neutral, inorganic absorbent. This has served a double purpose, for not only has the liability to explosion been practically eliminated, but also the undesirable tendency to liquify, due to the low melting point—40°-41°C.

When perfectly pure and free from moisture, the body will re-crystallize

even after having been kept in a melted condition for a considerable period. The presence of even small amounts of moisture, however, promptly cause hydrolysis, producing impurities which lower the melting point and tend to make the substance sticky, and finally reduces it to a permanent oil. The admixture with the inorganic absorbent, seems to have eliminated the necessity of extreme precautions save in the matter of preventing exposure to moisture, while kept in stock.

A few remarks concerning the preparation of solutions for clinical use may not be without interest. The quickest and most satisfactory results will be obtained if warm water (100° to 110°F. or 40° to 45°C.) be used, although solution will take place in water at ordinary temperatures. If a very strong solution be desired, add to one liter of warm water 1 gram of the pure crystals, or 2 grams if the mixture with the inorganic absorbent be used. Stopper, and shake vigorously for from three to five minutes. At the expiration of this time a perfectly clear solution is obtained, except with the infusorial earth mixture, in which case the solution will be milky, due to suspended silica. In a few moments, however, a slight cloudiness becomes apparent, which rapidly increases to a decided turbidity. This is due to the formation of dibenzoyl-peroxide, as represented in equation III above. If allowed to stand for 15 or 30 minutes this insoluble and inert precipitate settles to the bottom. If the solution is to be used as a spray or for irrigation purposes, it is better to filter it, but this is not at all necessary for the ordinary applications, simple decantation being sufficient.

The solution is colorless and possesses a faint pungent, not unpleasant odor, and when strong, a taste somewhat resembling pepper, though not nearly so sharp. The dilution may be carried to 1:5000 or even less, according to the use to which

it is to be put, as e. g., in application to inflamed and sensitive tissue. Repeated experiments on animals and humans have shown that large doses given daily for weeks are without any injurious results. In typhoid and cholera, therefore, the treatment consists in giving a 1:1000 solution as a drink ad lib. combined with rectal irrigation, and sometimes with doses of the crystals, 2 or 3 grains, in gelatine capsules, plain or shellac coated. As the solutions gradually deteriorate, the best results will be obtained if solutions be used within forty-eight hours after preparation. It is advisable to make up small quantities as required, rather than a large stock solution.

While it is not my purpose to deal with the clinical or bacteriological results obtained with aqueous solutions of benzoyl-acetyl-peroxide, I may add in closing that several interesting and satisfactory cases of treatment of tonsilitis, gonorrhœa, abscess, suppuration of the middle ear, and carious teeth have been reported. I would refer to the paper by Dr. Eugene Wasdin (*American Medicine*, Feb. 8, 1902,) on its application in 24 cases of typhoid fever, and to that of Dr. Hoff (*Dental Cosmos*, Feb., 1902). A complete report of the chemical portion of this research as far as it has progressed, together with a brief summary of the bacteriological work, will be found in the paper of Freer and Novy (*American Chem. Jour.* Vol. XXVII, No. 3, March, 1902). A complete report by Dr. Novy of the extensive bacteriological work is shortly to appear in the *Jour. of Experimental Medicine*.

Clinical reports from the members of the profession, in whose hands the future of Acetozone now rests, will be watched with interest.

Detroit, Mich.

Neuralgia.—

Peppermint oil.....	8 drachms
Aconite tincture.....	4 drachms
Chloroform	2 drachms
Label "Poison." Apply every half hour.	

A Cry Against Immoral Advertising.— In a recent number of the *Medical News* appeared the following comment: We shoud suppose that the laws of the United States prohibiting the passage of any indecent or immoral publications through the mails, would be sufficient to exclude some of the newspapers of the day. There are newspapers of a certain type that do not hesitate to carry a line of advertisements that are grossly immoral. Commercialism has risen above all sense of decency with them, and they do not scruple to publish the covert advertisements of the abortionist and the pander. There is evident, however, among the better newspapers a tendency to guard their advertising columns. That the postal laws are not enforced against those that offend public decency, the responsibility lies largely upon the officers of the law, for where the law exists, the executive is to blame if the evil continues.

At a recent meeting the Kansas City Academy of Medicine passed a series of resolutions on this subject. It demands a censorship over the press, and calls the attention of the Post-Office Department to its broken and unenforced laws. We shall await developments, and keep our eyes on the Post-Office Department.

Don't Bathe Too Much.—Too much bathing is harmful, as it tends to maceration of the superficial part of the epidermis, which is too frequently removed, and occasions probably too rapid a proliferation of the cells of the malpighian (lowermost) layer.—(*London Lancet.*)

Snake Venom as a Stimulant.—Hem Chandra Sen considers the fresh venom obtained from strong, young black corba (keuta variety) the most powerful stimulant in plague. Fortunately, it is an irritant to the bowels, and a hepatic stimulant, so that most of it is thrown out and the danger of poisoning is thus lessened. The author prefers its administration by the mouth, mixed with bile or arsenic, to giving it hypodermically, as in the latter case it is liable to cause disintegration of the red blood cells, which are already in danger of disintegration from the plague itself.—(*Indian Medical Record.*)

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

WALTER C. BOYNTON, Manager.

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THE DETROIT MEDICAL JOURNAL CO.,

Note.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, to 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., JUNE, 1902.

A BUSINESS TALK.

Business is Business, whether we are interested in painting landscapes or manufacturing sausage, and the consideration of this fact urges us to say a few words at this time. Will every physician who knows that his subscription to the DETROIT MEDICAL JOURNAL has expired, please either send us another dollar for a renewal or else a notice to the effect that he doesn't want the JOURNAL sent to him any more? We shall receive either communication gladly, the former, of course, with more gladness.

If you are not a subscriber, doctor, let us hear from you, too. It only takes a minute of your time, but if we had to do correspondence with every one of our thousands of readers, we would have to multiply that time by several thousand, and it would mean much hard work for us. Help us out in this matter. We are doing our best to support what we believe are the proper principles for the medical profession to follow; take an interest in us, in turn. We don't ask much, either in time or money; and we think you are getting value received for your money every time.

We want to get a big batch of mail from our subscribers and our readers all over the country this month. Please do your share to see that our hopes are not disappointed.

ORGANIZATION AMONG PHYSICIANS.

Plans for the amendment of the constitution and the by-laws of the various state societies throughout the country so as to admit of their practical re-organization along the lines suggested by the American Medical Association are in many cases well advanced. Their completion will mean an enormous increase in the strength and effectiveness of that organization, for then every society in the country will be directly interested in the success and the advancement of the parent body, since each society will have representation in the House of Delegates in the state association, the latter body in turn being represented in the American.

And the ground is being carefully gone over. Each county in the state is urged to form a society, the membership to include all those who are legally qualified to practice medicine. Where there are too few physicians in a county to make the formation of such a society advisable, the men in the county are asked to join with those in an adjacent county and this process of combination is to be continued until the allied county societies have a membership that embraces all the eligibles in the district. The county societies are to be allowed one representative in the state association for every one hundred members, or fraction thereof; the object of this rule is to prevent the governing body of the state society from becoming too unwieldy and to prevent the legislative power from being entirely in the hands of large societies. Where two county societies exist, they are urged to join hands and later join the state society; where there are differences, the differing members are urged for the good of the profession and the benefit of the national association to work together in the interests of all. If the plans that have been made are properly carried out, America will have the best organized and the most efficient organization of medical men in the world.

Definiteness and system are as necessary to the success of a big medical association as they are to a manufacturing business. And it speaks well for the good hard common-sense of the doctors that they have gone after the matter of organization in so definite and systematic a way. The committee suggests that a council shall be formed within the state association, to be made up of men from the different county societies, chosen so that they shall represent every corner of the state. Here in Michigan the plan is to have one man from each of the congressional districts so that no city or town may feel that her interests are being neglected. It will be the duty of each member of this council to see that enthusiasm is kept up to the proper pitch and that work is being done all over his own particular territory. He will be held personally responsible for the conduct of matters pertaining to his corner of the state; naturally, a great deal depends upon the calibre of the men who are selected for membership in the council. Between them and the men of the house of delegates hangs the question of the success of the state society; and on its success hangs the success of the national organization.

Most advances are slowly made, but it seems strange that some concerted effort along the line of general organization has not been at least attempted earlier in the history of medical profession of America. Other countries have their associations of medical men, membership in which is to a large extent the hall-mark of respectability and ability. The same conditions no doubt obtain here, but there has up to the present been lacking the very general character of the organization among practitioners which must be the chief figure in its value to the profession as a whole. Now that effort is being made along this line, we may expect great things from the profession in societies.

The Michigan State Medical Society will take these questions up at its meeting in Port Huron, a copy of the programme of which is published elsewhere in this issue of the JOURNAL. It is an important time for the state society, and if it is finally decided to adopt the amendments and alterations of the governing rules, so as to admit of a joining with the national body, a very considerable increase in membership may be shortly looked for. Membership of the right stuff is what counts in a movement of this kind; and if it is made an acknowledged honor to belong to the newly organized association, we may be sure that the membership will be large, including all the reputable practitioners in the state—of whom, thank God, there are a great many. We shall watch with interest to see just what Michigan's representative medical men do with a question, the correct settlement of which means so much for the American Medical Association's future and its own future.

LIMITING THE SUPPLY.

It is entirely probable that few men in the profession of medicine would contradict a statement to the effect that the ranks of the practitioners are already crowded, while there is visible no let-up in the number of additions to the medical family which arrive with such pleasing regularity every June. The practice of medicine, healing mission though it is, is subject to the old and time-tried law of supply and demand; and when the supply of physicians is too large, the demand for their services is correspondingly small. As a general proposition there are just about so many patients. Each one has to go to some doctor and the chances are that he goes to the one that he believes to be the best. This simply means that there are going to be some doctors who have no patients in their

reception rooms, much like the briefless barrister of the English law courts.

It is usually the young doctor that goes patientless. You can't blame a physician for being young, of course. But you can find a little fault with him for coming into a profession that is already getting near to the point when the term "over-crowded" is not wholly inapplicable. The question of remedy is one of many aspects. The boards have done much in the way of getting men out of the profession after they have once been in it, when they are improperly prepared to do what they are undertaking to do. Now it remains for someone to suggest a means which will keep young men out of the profession to begin with, when they are not properly equipped. Many plans have been offered in solution of the question, but most of them at least seem to fall short of the requirements. One solution was a longer course. This immediately meets with the objection that such a regulation would effectually bar many a poor man who really had the strongest determination to become a physician but who could not go through the necessarily expensive course of preparation if it were to be made any longer than it is now.

Others suggest a more extended and more difficult curriculum, requiring graduation with a bachelor's degree before it is permitted the student to begin his studies for a doctor's sheep-skin. This is also open to objections. Some of the best practitioners to-day are men whose education outside of medical fields has been originally very scant and sparse.

We should like to hear from the profession on the line of suggestions as to how best to regulate the number of young men who shall study medicine.

TRAPS FOR THE PHYSICIAN.

Attention is being called to a somewhat novel method recently put into play

by some of the "ambulance chasers" among the legal fraternity, whereby they endeavor to secure the co-operation of the physician to assist them in securing the payment of damages for their client. Circulars have been written and widely circulated, calling the attention of the profession to the fact that by his line of work he is frequently apprised of some accident for which a corporation can be held responsible or some employer made to pay damages for. The physician addressed is told that it is his Christian duty to assist the client, who is presumably needy, to secure remuneration for his injuries; and he is delicately told that other men in the profession have been of service to the firm of attorneys along this line and that they have been handsomely "remembered" for their pains.

There is every chance that a carefully written circular of this kind will appeal to the physician. There are no doubt many cases in which a physician gives his services in an emergency call, afterwards having only the satisfaction of having done his duty as a reward for his trouble. There is a certain apparent air of justice about the proposition that is certainly attractive—and the circular always states that the "fee" of Dr. So-and-So, in return for merely mentioning the matter to the enterprising legal men, reached a very handsome figure. But the men of the profession who would care to make a collaboration with a gang of men who are in this sort of business, are, we believe, very few in number.

The circular states delicately that the physician will not be asked to appear in court. And herein is one of the features of the whole business that stamps it as being hole-and-corner. If a physician is justified by his own conscience in taking up a matter of this kind, he is certainly justified in going into court as a witness and giving his best help to his patient in

securing damages that are really due him. But that is just the trouble. The physician is hampered by his conscience and a sense of ethics. He knows that if he does go into the matter at all, he will be associated with some legal sharks who have no philanthropic motive, nor any mission of healing their client's lacerated feelings. They are in business for money and they stand in a different relation from that of the doctor in that they have voluntarily proffered their services to a client on a commission basis, while the doctor is importuned to relieve distress without any chance of remuneration except that which has its root in the gratitude of the patient. And the average patient in cases of this kind is prepared to give republics points on how to be ungrateful.

No, there is no really valid defense for a practitioner of medicine who lends himself to the prosecution of any such scheme as this. Its shoddy quality is readily recognized by the profession as a whole, which would be quick to make a physician feel that he had lowered himself in their estimation if he appeared in court as a party to any case of such lawyers' seeking. Of course, a physician has a right to be paid when the patient can pay him; and he is justified in going to court if other means fail, just as is any merchant who cannot collect his accounts when they are past due. But he must go in honorably and fairly, on the merits of his own case, and not in company with a collection of cheap lawyers, of whose probably trumped-up case he knows practically nothing.

It is largely to the young physician that this class of circular is addressed. And the unwary will do well to think carefully over the matter before they lend aid in such a cause. The fee is better uncollected if it comes only at the cost of a man's sense of honor and the respect of his fellow-practitioners.

EDITORIAL NOTES

As we go to press, the twelfth annual meeting of the national confederation of state medical examining and licensing boards is about to be inaugurated at Saratoga Springs, N. Y. Meetings are arranged for in the Y. M. C. A. hall and latest indications are that the promised attendance will be reached. The programme of the meeting, as officially sent out, is as follows Invocation—Rev. Herbert Gesner, Saratoga Springs; Address of welcome—Mr. A. P. Knapp, president of Saratoga Springs; Address of welcome on behalf of the medical profession of Saratoga Springs—George T. Church; Address of welcome on behalf of the Regents of University of the State of New York—Albert Vander Veer, Ph. D., M. D., Albany; Address of welcome on behalf of the State Board of Medical Examiners of New York—William Warren Potter, Buffalo; Response—Vice-President Henry Beates, Jr.; Report of the Secretary-Treasurer; Annual address by the president "Uniformity in medical practice acts;" The work of the Regents of the University of the State of New York—James Russell Parsons, Jr., M. A., Secretary of the University; "Divided examination for license." Joseph H. Raymond, president of the Medical Council of New York; Discussion—to be opened by the following members: E. B. Harvey, Boston, Mass.; E. L. B. Godfrey, Camden, N. J.; "What can be done to regulate the number of young men studying medicine?"—R. S. Martin, Stuart, Va.; "The results of the medical law of Tennessee"—T. J. Happel, Trenton; "Should there be the same examination for old practitioners and for recent graduates when applying for a license to practice medicine?"—Maurice J. Lewi, New York; "The definition of the practice of

medicine in medical practice acts,"—Harold N. Moyer, Chicago, Ill.; "How may the topics in examinations for license be best arranged by examining boards?"—Henry Beates, Jr., Philadelphia, Pa.; Discussion—to be opened by the following members: William A. Spurgeon, Muncie, Ind.; Gardner T. Swarts, Providence, R. I.; Miscellaneous Business; Election of Officers; Adjournment.

Interesting topics, with plenty to be said on both sides, have been arranged for, and the meeting should give rise to a healthy discussion of live questions, of interest to every practitioner.

There are times when it seems to a free-born American that an iron-clad monarchical government is not such a very bad thing, after all. For example, the Kaiser of Germany has lately announced that he will severely deal with any member of the German army, court, state or church who joins the cult of Christian science. This is a radical improvement over the efforts of Rev. Dr. William Faber, the chamberlain at the court, who has been working toward the same end by means of sermons and pamphlets. But the Kaiser's threat of ostracism will undoubtedly have an effect. He has announced that he does not care whether people join the church for the purpose of being cured of disease or for the health of their souls; he doesn't like the Christian science business and he threatens trouble for those who join in making it easy for the promoters to make money. The leaders of the church at Berlin will come back to this country some time this month, unfortunately.

Charles M. Hackley, the Muskegon man of wealth, who has already done much to make him well thought of in the city in which he resides, has lately given further evidences that he is a liberal man whose liberality has a definite purpose.

On May 28 he presented the city with an endowment of about \$100,000, the money to be used in the purchase and maintenance of a hospital. It is expected that the building will cost in the neighborhood of \$75,000 and the site is a space of two and one-half blocks in the city's southeastern part. Mr. Hackley also intends to establish a school for the scientific training of professional nurses. This feature, taken in connection with the establishment of the hospital, with a generous endowment of \$50,000, marks Mr. Hackley as being the right kind of a man, who has the health interests of the city at heart. It is too bad that there are not more people like him.

It is announced that the fifteenth annual session of the Michigan College of Medicine and Surgery will open at the college auditorium on Wednesday, October 1st, 1902, at 10 o'clock a. m. Among the innovations introduced into the college curriculum this year, is to be a department of tropical diseases, devoted to their study and treatment. This department will be opened in response to a feeling that, in view of this country's constantly increasing interest in tropical countries, her physicians should know more of the diseases peculiar to hot climates.

Dispatches from Atlantic City, N. J., where the annual convention of the American Gynecological Society was held last month, announced the election of Dr. E. W. Jenks, of Detroit, as one of the vice-presidents of the organization. The other officers chosen at the election, which was held on May 28, are: President, Dr. J. E. Janvrin, New York; Vice-President, Dr. A. P. Dudley, New York; Secretary, Dr. W. J. Rickle Goff, New York; Treasurer, Dr. J. M. Baldy, Philadelphia.

The fiftieth semi-annual meeting of the Northeastern Medical Society of Michigan will be held in Mt. Clemens the last week of July. Eight counties of Michigan are represented in the membership of the society, which numbers in the neighborhood of 100 physicians. Dr. Knight, who has recently removed from Utica to Mt. Clemens, is a charter member of the society and it is at his invitation that the society meets at the Bath Town. While the meeting is in progress, the members will be entertained by the Physicians' Protective Association.

At the last meeting of the Wayne County Medical Association it was announced that the following physicians will represent the association at the convention of the National Medical Association, to be held at Saratoga Springs beginning June 10: Dr. Leartus Connor, president of the State Medical Society; Samuel Bell, president of the Wayne County Society; Hal C. Wyman, E. B. Smith, E. W. Jenks and J. J. Mulheron.

Dr. Delos Parker, the retiring president of the Detroit Medical Society, gave an informal luncheon to about sixty of his friends in the profession on the evening of Wednesday, May 28. Short and informal speeches were made by several of the physicians present.

The management of this JOURNAL has knowledge of an assistantship in a physician's office in Port Huron, which is now vacant.

THE PORT HURON MEETING.

The following programme of the meeting of the Michigan State Medical Society, to be held at Port Huron on June 26 and 27, was furnished to the JOURNAL through the courtesy of Dr. Andrew P. Biddle, secretary of the society. It presents some most interesting features and

if the promises for attendance are lived up to, the meeting should have a good effect. The official programme is as follows:

GENERAL SESSION.

First Day, Thursday, June 26th.

8:30 A. M. Standard.

Auditorium.

- I. Call to order by the President.
Leartus Connor, Detroit.
 - II. Opening Prayer.
Rev. John Munday, Port Huron.
 - III. Address of Welcome by the Mayor.
Hon. Fred. T. Moore.
 - IV. Report of Executive Committee.
C. B. Stockwell, Port Huron, Chairman.
 - V. Annual Reports of Treasurer, Secretary and Chairman of Publication Committee.
 - VI. First Report of Committee on Admissions.
G. W. Lowry, Hastings, Chairman.
 - VII. Annual Report of Committee on Necrology.
W. F. Breakey, Ann Arbor, Chairman.
 - VIII. Reports of Special Committees.
 - IX. Annual Address of the President.
"The Michigan Medical Society." Its first eighty-three years. Suggestions for the Future.
Leartus Connor, Detroit.
 - X. Miscellaneous Business, including
 - (a) Report of Committee on Reorganization.
 - (b) Report of the Michigan Representatives in the House of Delegates of the A. M. A.
 - (c) Proposed Amendments to the Constitution.
 - (d) Nominations for President, Vice-President and Secretary.
- Adjournment.

First Day, Thursday, June 26th.

7:30 P. M. Standard.

The Oakland, St. Clair.

- I. Annual Address on Surgery.
Surgical Advantages.
Angus McLean, Detroit.
 - II. Annual Address on Obstetrics and Gynecology.
Some Triumphs and Defeats.
W. H. Haughey, Battle Creek.
 - III. Annual Address on General Medicine.
The Value of the Examination of the Blood to the General Practitioner.
William K. West, Calumet.
- Adjournment to Informal Speeches.

Second Day, Friday, June 27th.

11 A. M. Standard.

Auditorium.

- I. Final Report of Executive Committee.
C. B. Stockwell, Port Huron, Chairman.
- II. Further Report of Committee on Admissions.
Geo. W. Lowry, Hastings, Chairman.
- III. Report of Committee on Finance.
M. W. Gray, Pontiac, Chairman.
- IV. Report of Committee on Nominations.
Samuel Bell, Detroit, Chairman.
- V. Unfinished and Miscellaneous Business.

EDITORIAL NOTES

At 12 o'clock Standard the result of the ballot for President, Vice-President and Secretary will be announced.

Adjournment.

SECTION ON GENERAL MEDICINE.

First Day, Thursday, June 26th.
2 P. M. Standard.
Baptist Church.

Diseases of the Kidneys.

- (a) Etiology. Mortimer Willson, Port Huron.
- (b) Diagnosis. John E. Clark, Detroit.
- (c) Complications: Cardiac, Arterial and Portal. Hugh McColl, Lapeer.
- Uraemic. John McLurg, Bay City.
- Ocular. Walter R. Parker, Detroit.
- Cerebral. Irwin H. Neff, Pontiac.
- (d) Treatment. Joseph B. Whinery, Grand Rapids.

Discussion opened by George Dock, Ann Arbor, and J. H. Reed, Battle Creek.

II. Impetigo. Wm. F. Breakey, Ann Arbor.

III. The Management and Control of Syphilis. A. E. Carrier, Detroit.

Adjournment to Boat Ride.

Second Day, Friday, June 27th.

8:30 A. M. Standard.
Baptist Church.

- I. Enteroptosis and Pregnancy. Charles D. Aaron, Detroit.
- II. The Rest Cure: Its Limitations, Its Applications and Its Results. George F. Butler, Alma.
- III. Optimism and Pessimism in Medical Practice. David Inglis, Detroit.
- IV. Some Points in the Differential Diagnosis of Cancer of the Stomach. Collins H. Johnson, Grand Rapids.
- V. Malnutrition. Chas. Douglas, Detroit.
- VI. The Cause and Treatment of Asthma. Charles H. Baker, Bay City.

Adjournment to General Session in the Auditorium.

Second Day, Friday, June 27th.

2 P. M. Standard.
Baptist Church.

- Election of Chairman and Orator of Section.
- I. Conservatism in the Treatment of the Inferior Turbinals. J. V. White, Detroit.
- II. Bacterial Poisons. V. C. Vaughan, Ann Arbor.
- III. Clinical Notes on Phthisis in Michigan. Herbert M. King, Grand Rapids.
- IV. Treatment of Apoplexy. C. W. Hitchcock, Detroit.
- V. The Diagnosis of Aortic Aneurism. P. M. Hickey, Detroit.
- VI. Nature and Treatment of Epilepsy. Herman Ostrander, Kalamazoo.
- VII. The Treatment of Typhoid Fever. Geo. Duffield, Detroit.
- VIII. The Administration of Normal Saline Solutions. Alexander W. Campbell, Grand Rapids.

SECTION OF OBSTETRICS AND GYNECOLOGY.

First Day, Thursday, June 26th.
2 P. M. Standard.
Baptist Church.

Abortion, Miscarriage and Premature Labor.
(a) "Etiology and Prophylaxis." J. G. Lynds, Ann Arbor.

(b) Treatment. H. Wellington Yates, Detroit.

(c) Complications. A. H. Rockwell, Kalamazoo.

(d) Moral and Legal Aspect. F. J. Welsh, L. L. D., Kalamazoo.

Discussion opened by

- (a) W. H. Haughey, Battle Creek.
- (b) Geo. E. Ranney, Lansing.
- (c) Collins H. Johnston, Grand Rapids.
- (d) C. C. Clancy, Port Huron.

II. The Etiology of Pelvic Inflammatory Diseases. Richard R. Smith, Grand Rapids.

III. The Treatment of Pelvic Inflammatory Diseases. R. E. Balch, Kalamazoo.

IV. Senile Endometritis.

O. S. Phelps, Battle Creek.

Adjournment to Boat Ride.

Second Day, Friday, June 27th.

8:30 A. M. Standard.
Baptist Church.

I. Pelvic Drainage relative to Gynecology. O. H. Clark, Kalamazoo.

II. Appendicitis and Pelvic Diseases. Reuben Peterson, Ann Arbor.

III. A Case of Congenital Malformation of the Rectum. W. P. Manton, Detroit.

IV. The Technique of Symphysiotomy, with report of Case. F. A. Grawn, Munising.

V. Broad Ligament Varicocele. T. S. Burr, Ann Arbor.

Adjournment to General Session in the Auditorium.

Second Day, Friday, June 27th.

2 P. M. Standard.
Baptist Church.

I. Ventro-Fixation by a new method with Maguire Fixation Sound. Francis J. W. Maguire, Detroit.

II. Preliminary Report of some Observations on the Blood during Pregnancy and the Puerperium. George R. Pray, Ann Arbor.

III. Curetting:—The Value and Necessity of Microscopic Examinations. R. Grace Hendrick, Jackson.

IV. Puerperal Sepsis. Wm. F. Metcalf, Detroit.

V. The Value of Plaster Casts in teaching differential diagnosis and for acute case records, with Demonstrations. Reuben Peterson, Ann Arbor.

VI. Uraemia in the Course of Child Bearing. Earl Bigham, Grand Rapids.

VII. Parotitis following Abdominal Section. W. H. Morley, Ann Arbor.

**SECTION OF SURGERY AND
OPHTHALMOLOGY.**

First Day, Thursday, June 26th.
2 P. M. Standard.
Auditorium.

- I. Treatment of Obstipation by Section of the Rectal Valves. J. A. MacMillan, Detroit.
 - II. Prostatectomy. H. O. Walker, Detroit.
 - III. The Surgeon in Emergency: Methods and Precautions. L. E. Best, Grand Rapids.
 - IV. Rupture of Intestine. Operation and Recovery. Frederick W. Robbins, Detroit.
 - V. The Therapeutic Use of the X-Rays in Lupus and Malignant Growths. Henry R. Varney, Detroit.
 - VI. Sequelae of Ophthalmia Neonatorum. Don M. Campbell, Detroit.
- Adjournment to Boat Ride.

Second Day, Friday, June 27th.
8:30 A. M. Standard.
Auditorium.

- The Surgery of the Kidney.
- (a) Movable and Floating Kidneys. Eugene Boise, Grand Rapids.
 - (b) Kindey and Ureteral Calculi. T. A. McGraw, Detroit.
 - (c) New Growths of the Kidney. A. S. Warthin, Ann Arbor.
 - (d) Acute Infections of the Kidney. T. A. Felch, Ishpeming.
 - (e) Nephrectomy in Tuberculous Conditions. W. H. Haughey, Battle Creek.
- Discussion opened by
- (a) C. B. Nancrede, Ann Arbor.
 - (b) H. O. Walker, Detroit.
 - (c) Heneage Gibbes, Detroit.
 - (d) S. C. Graves, Grand Rapids.
 - (e) T. A. McGraw, Detroit.
- Adjournment to General Session in the Auditorium.

Second Day, Friday, June 27th.
2 P. M. Standard.
Auditorium.

- Election of Chairman and Orator of Section.
- I. Aneurism of the Innominate Artery. L. J. Hirschman, Detroit.
 - II. A Case of Vicarious Macula. O. A. Griffin, Ann Arbor.
 - III. The Importance of the Early Diagnosis and Treatment of Ear Diseases in Infancy and Childhood. A. E. Bulson, Jackson.
 - IV. What is the Conservative Treatment of Mastoiditis? Don. M. Campbell, Detroit.
 - V. Some Remarks on Mastoid Diseases. R. W. Gillman, Detroit.
 - VI. Advisability of Early Surgical Interference in Mastoid Affections. Emil Amberg, Detroit.
 - VII. Sterilization of Catheters by Boiling. W. H. Hutchins.

Practicing Medicine by Telephone.—
We heard a doctor complain recently that one of his patients, in order presumably to save his time, sometimes called up on the telephone when she wanted him to give advice about the baby. The good dame would sit at the other end of the wire, pencil in hand, and ask the unfortunate doctor to dictate his instructions while she took them down. This continued until one day she asked him to dictate his prescription. At this he rebelled. He was willing to take the baby's temperature and pulse by telephone, and even to inspect the character of the dejections; he was even willing to tell all he knew about babies in general and about that baby in particular; he did not even object for a while to give the lady the full benefit of a professional call and charge it as an office visit; but his conscience smote him when it came to dictating a Latin prescription by telephone and having a thrifty-minded housewife sign his name to it before her own initials.

Some physicians should write a chapter on the medical ethics of the telephone. We would do it ourselves if we felt capable. There are two sides to the question. The patient sometimes gets the better of the doctor, and saves a fee—but the doctor sometimes gets the better of the patient and saves himself a lot of trouble. It is obvious that in either case the patient should pay for it. But the question arises, what should he pay? Is it an office visit, or a house visit? The advice is given in the office, but is received in the house. This is somewhat of a metaphysical quandry. Should a doctor charge an office fee for giving advice that goes straight to the patient's bedside? On the other hand, should a patient be obliged to pay a house fee for advice which a doctor gives sitting comfortably in his office? The problem is full of difficulties. Perhaps it would be best to call it half-and-half, and charge accordingly.—(*Medical Review of Reviews.*)

Cleansing Nasal Wash.—

R. Sodii bicarb.,
Sodii boratis.,
Sodii chloridi, of each, 1 ounce.

M. Sig.: One teaspoonful in a cupful of warm water as a gargle and insufflation.

—(*Oklahoma Medical Journal.*)

NEW INSTRUMENTS & DEVICES

Mention of new instruments and devices in this department is entirely complimentary and articles illustrated are judged on their merits.

We invite manufacturers and physicians to send us matter suitable for publication under this head. A description of the device and an electrotype or half-tone with a base not greater than two and five-eights inches should be sent.

three sections, the united length of which is sixty-five inches. The top is twenty-three inches from the floor. Movement is facilitated by two casters on the legs of the table and the lightness of construction makes it easily movable from place to place. The brightness of the metal makes the table an unusually attractive piece of office furniture and it is thoroughly up-to-date in all its points of excellence.

Of the three sections, the center one is not moved, but the two end ones are, and all desirable positions are easily secured.



Always mention the price of the article in question.

The management cannot undertake to return cuts unless postage for same accompanies the letter with which they are sent.

NEW SURGICAL TABLE.

This table will surely appeal to the surgeon or physician who has an eye to keeping his operating room in the best condition possible. The table is wholly made of nickle-plated steel, and is in

A feature that greatly facilitates the moving of the patient after he is once on the table is a band of heavy cotton which occupies the top of two sections and is easily moved by a crank on rollers at either end. By this means the patient can readily be moved from one end of the top to the other without the slightest discomfort, and exact positions are easily obtained. At the front is a step to facilitate the placing of the patient on the table and this easily swings out of the way o

the operator. Two swinging shelves are located at the front of the table, handy for instruments and dressings, but promptly put out of the way and out of sight when they are no longer required. Upright rods for stirrups and leg-holders are placed conveniently at the front of the table for gynaecological examinations and straps for securing the patient in any position are easily passed through slots provided for them. A nickle-plated standard for holding an irrigator is also part of the outfit which goes with the table.

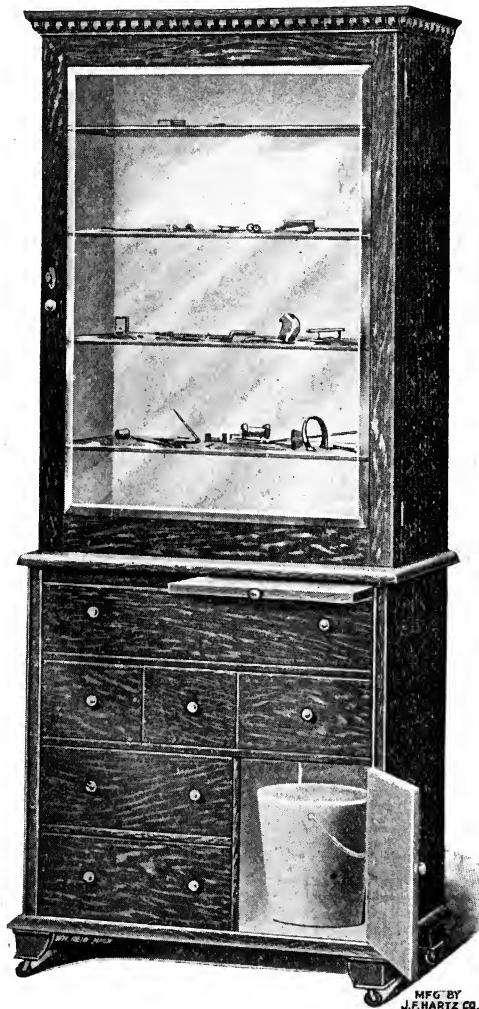
For handsome appearance, strength, durability and convenience, this table certainly has strong claims on the interest and attention of the profession. The ordinary size retails to the physician for \$87.00 and the hospital size for \$10.00 more.

INSTRUMENT CABINET.

For the physician who wants an attractively finished and modern cabinet for his instruments, which shall harmonize with his office fittings and at the same time always present an appearance of absolute asepsis, the cabinet illustrated by the accompanying cut is most heartily recommended. It is one of the best things of the kind that we have seen. The total height of the cabinet is seventy-five inches, the distance from the floor to the top of the lower section being thirty-six inches. The top portion is twelve inches deep and the lower portion fourteen, while the width of the entire cabinet is twenty-eight inches. It is handsomely finished outside in quarter-sawed golden oak, polished, and the entire interior is finished in hard white enamel.

In the upper portion are four adjustable glass shelves for holding instruments and the door of bevel plate glass closes tightly so as to perfectly exclude dust. There are six commodious drawers in the cabinet and in the lower compartment is a space containing a dressing pail, which

is furnished with the cabinet. Ball-bearing casters provide for the easy moving of the cabinet from place to place and for convenience and commodiousness the



MFG BY
J.F. HARTZ CO.

piece of furniture is well-nigh ideal. The cut gives a good idea of the general appearance of the cabinet, but it must be seen to be appreciated. Its price is \$30.00, and it is certainly well worth it.

THELMA DEODORIZING LAMP.

Formaldehyde is so generally recognized by the profession as a disinfectant that appliances for producing the gas are usually interesting to the physician and

to his patient. The lamp, a cut of which is herewith presented, is claimed by its manufacturers to be the most simple and economical device of the kind on the market. It is certainly simple and safe. A few seconds suffice for setting it in operation and a simple turning down of the wick of the lamp stops the supply of gas. The physician will readily think of numerous occasions in which the possession of a simple and inexpensive and at

The Thelma

A HOUSEHOLD NECESSITY

INDISPENSABLE IN SICK ROOM

DEODORIZING LAMP.

the same time efficient disinfecter would be of great convenience, while the installation of such a device in the homes of his patients would make his own work easier in many cases. Travelers, whether on train or boat or at hotels, will find this little device handy enough, as it takes up but little space and can be easily carried, while its use gives a sense of security to the owner, against the presence of germs deleterious to health. The non-poisonous properties of formaldehyde render its use by the laity safer than is that of the majority of other disinfectants. The device costs 50 cents, or 60 cents by mail.

RED CROSS MEDICINE SPOON.

For those who believe in individual cleanliness, especially in the case of sickness in the family, this spoon is just the thing. It is designed exclusively for the administration of medicine. Made of sterling silver, it is not affected by any of the acids commonly administered in medication and when it is stained by medicine the spot is easily removed. It is an individual spoon, for the use of a sick person only, and with this end in view it is made so as to contain exactly one druggist's drachm. When medicine that measures more than this is put in it the excess runs out at the tip of the spoon. The rounded sides and the lips at the tip of the spoon do away with the possibility of spilling



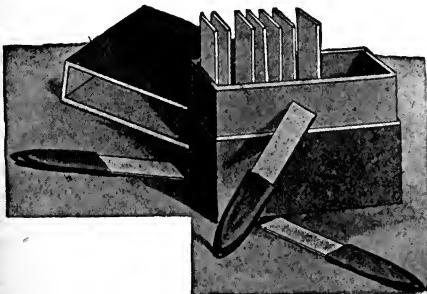
medicine and when a patient is weak or refractory, one hand can be used to assist or restrain him, while an exact dose is administered with the other. The high sides protect the teeth from the action of any acid contained in the medicament and the handle admits of a firm grip, so that the person administering the dose may place the dose well back in the patient's mouth. Accuracy and cleanliness are assured and the spoon should meet with the approval of the profession and of nurses. It retails for the sum of \$2.00.

GLASS VACCINE POINTS A NEW AND ORIGINAL IDEA.

One of the most interesting developments in vaccine points is that recently placed upon the market in the form of a fine glass point, similar in size and shape to that of the ivory point. Every propagator of vaccine as well as user, has recognized the limitations of the ivory or bone point, inas-

much as it could not be properly sterilized either by dry heating, which chars it, or by the use of antiseptic solutions or powders, which would be absorbed in the bone and destroy the vaccine virus itself, and for this reason experiments have been carried on covering a period of years, to secure a proper substitute in glass, which from the start has been recognized as the ideal, if it could be properly produced. The manufacturers have succeeded in doing this, having under their management a large and completely equipped glass plant, on their vaccine farms, for the manufacture of such glass-ware as they use in connection with antitoxin and vaccine.

The glass point permits of thorough



scarification, it is easily and thoroughly sterilized, and is supplied either in form of dry points, or what is superior to these dry points, the glycerinized form of vaccine. This is the same vaccine as employed in the glycerinized tubes and is thoroughly tested and free from pathogenic organisms.

The glass point is first sterilized, then tipped with glycerinized vaccine, which has been carefully tested bacteriologically and physiologically, to prove its activity and purity, after that it is encased in sterile glass capsule, which is then hermetically sealed, thus permitting handling of the point without any possible contamination; and it is in point of fact, the ideal form of vaccine, representing the purest and most active.

There is no advanced charge made for

the glass glycerinized points and we endorse them as being the most advanced step forward in the marketing of a pure and aseptic vaccine.

THERAPEUTIC BREVITIES

Small-Pox Remedies.—There is no specific remedy for small-pox. Hygienic measures are very important. A warm bath should be given at the beginning of the disease and the patient thoroughly cleansed; if the case be mild this bath should be repeated daily; if severe a sponging all over the body should be given daily. If the eruption threaten to be severe the hair and beard should be clipped in the beginning. If the case be mild, however, young women need not be asked to sacrifice their hair. For the headache an icebag or cold cloth frequently renewed may be placed on the head and will give great relief. This will not suppress the eruption as has been frequently said. Warm applications are most suitable for the relief of lumbar pains; mustard poultices should not be used, however, as they serve only to make the patient uncomfortable and do no good. They bring out a good crop of lesions on the back, but the theory that the more lesions there are elsewhere, the more the face will be spared is not true. For the sore throat so commonly an early symptom in small-pox, cold milk and ice are good. After the eruption comes out patients usually feel so much more comfortable that they are apt to go about their business as if well. Local treatment of the lesions does not arrest them nor prevent pitting. The use of a mercurial plaster, so often recommended, is more uncomfortable than beneficial.—(*Medical News.*)

French Philosophy.—“Life is a railway track; the years are the stations; death is the destination of the travelers, and physicians are—the engineers.”—(Trans. from *Montréal Médical*.)

NOTES & COMMENT

Static Machine Stimulants.—The man with a static machine, usually, and in fact nearly always, has troubles of his own, especially during the hot, moist weather of the months of July and August, and along rivers, lakes and coast.

Static machines are variable and fickle, but are governed by certain laws which must be obeyed. Moisture and dust are the greatest troubles to contend with. No matter how tight the case may be, dust and moisture will get into it. Some machines are less susceptible to the atmospheric conditions than others, and notwithstanding the claims made by makers, there is no machine that can be depended upon to generate always under every circumstance and condition. We may so alter the circumstances and modify the conditions that we can be reasonably sure of our machine working, but never be absolutely certain of it.

Some machines have a smaller machine, or charger, inside the case, in order to start the current and charge the larger plates, but even then they sometimes fail to work. The glass and mica plates should be covered with a coating of shellac. Hard rubber plates are left bare. Various methods have been tried to keep the air inside the cases free from moisture, such as lamps, incandescent lights, electric coil heaters, jars of sulphuric acid, common lime and chloride of calcium, but lamps, lights and coils heat too much, acid gives off destructive fumes, lime dust flies. The most generally used and probably the most satisfactory, when all else is considered, is fused calcium chloride. This is not the ordinary chloride of lime of the stores, which is chlorinated lime, or bleaching powder, which gives off the fumes of chlorine gas, which will ruin the metal parts, but the fused chloride of calcium which comes in rough, hard lumps. It should be thoroughly baked, bone dry, in a deep, flat granite or earthen vessel and kept inside the case all the time. Being very hygroscopic, it quickly absorbs all the moisture in the case, and keeps the air within quite dry.

As it gets wet it becomes soft and sticky, and should then be removed and again thoroughly dried or baked. Do not allow it to get on the stove or metal part, as it will ruin it, but when carefully handled it is safe and reasonably sure. The same calcium can be used over and over indefinitely. Probably the safest, quickest and cheapest way of drying the case is the jar of cracked ice and rock salt. Do not use snow or common salt, or forget the saucer, but use as follows: Take a one-quart glass fruit jar with screw top, fill with a mixture of powdered ice and rock salt, screw down the cover and wipe the moisture from the outside of the jar; place the jar in a saucer or bowl inside the case of static machine, close the door and set the machine in motion, keeping the plates moving until the machine begins to generate at its best. After, say an hour, when the ice is fairly melted, remove the jar and quickly close the end door so as to prevent the outside air from getting into the case. This simple remedy will dry the air within the case in from five to twenty minutes. Materials for this experiment are accessible to every physician at all seasons of the year, and the application of this remedy is entirely free from the danger of corrosion of the metal parts of the machine and the annoying care and labor of frequent drying and baking of chloride of calcium.

Apply the remedy when next your machine refuses to generate, and it will insure the very best results in the operation of your machine on any and every day in the year.

Simply holding a pledge of absorbent cotton against the revolving plate while in motion will often cause the machine to generate at once, especially the rubber plate machine.—(*Electro-Therapeutist.*)

Coffee Cigarettes.—An exchange prints the following: They are reported to cure a person of the tobacco smoking habit. The cigarette is made of the leaf of the tree, not a compound of the ground bean. Coffee-leaf smoking is said to possess the property of imparting to tobacco smokers an intense dislike for the flavor of tobacco.—(That's a good idea. Now we want to know what the coffee-leaf smokers can use to impart to themselves an intense dislike for the flavor of coffee.—Ed.)

BOOK REVIEWS

Quain's Dictionary of Medicine. By Various Writers. Third Edition, Largely Re-written and Revised Throughout. With Fourteen Colored Plates and Numerous Other Illustrations. Edited by H. Montague Murray, M. D., F. R. C. P. Assisted by John Harold, M. B., B. Ch., B. A. O., and W. Cecil Bosanquet, M. A., M. D., M. R. C. P. Pages 1892. Size, 6½ x 9 inches. Cloth, \$10.00. D. Appleton & Co., Publishers, New York, 1902.

This well known aid to the practitioner has enjoyed three editions in twenty years, the first one being issued in 1882 by the late Sir Richard Quain, M. D. The fact that both of the first two editions have been successful must argue well for the practicability and general value of the form in which the work is now placed before us, in one simple but handsome cloth-bound volume. Dr. Murray takes occasion in the preface to extend his hearty thanks to both his assistants and to the publishers, and an inspection of the book leads one to the impression that his encomiums are well deserved in both quarters. The whole work was produced within eighteen months, surely a feat of no mean order, when one considers the amount of editing that is invariably necessary in the fulfilling of a work of this kind.

Diagnosis and treatment are the primary objects of the work and this is in accord with the plans of the dictionary's first editor. Pathology and ætiology are given their due, but it is to determining the nature of disease and then treating it that the subject matter of the dictionary is chiefly addressed. Along these lines the seeker after information may find that which is helpful and practical, while a system of easy cross reference makes

everything in the book that bears upon a particular subject, of easy access. This system of cross reference also has the effect of doing away with much useless repetition, so that the dictionary is in reality more compact than one might suppose, in view of the fact that it contains so much reading matter.

The work is by no means confined to the subject of diseases, their diagnosis and treatment. There is a well written article on Public Health and another on Personal Health; both of them are full of practical ideas on the subject of rational living. The Law of Lunacy is treated of, and this article, in connection with those on Civil Incapacity and Crime, gives a broad view of the subject of lunacy in its legal aspect, as it affects the physician.

Among the colored plates are two illustrating the several forms of urinary deposits, which are of great interest and serve to mark several able articles on the urine in general. The general topic of the ophthalmoscope is illustrated with eight plates, showing the various aspects of the eye in health and under morbid conditions. There are some interesting half-tones of the brain and the illustrations in general are well chosen and well executed.

An interesting feature of the work, written without prejudice, is the brief mention throughout its pages of the various watering-places of this country and Europe. Considerable attention is paid to the question of the therapeutic action of the medicinal waters and the name of each place is followed by a description of the principal waters and their properties.

The book is thoroughly well published and should form a valuable adjunct to the library of the physician and the surgeon.

ially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Paediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and other Topics of Interest to Students and Practitioners. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, Pa. With Regular Correspondents in Montreal, London, Paris, Leipsic and Vienna. Copiously Illustrated with Half-Tones and Colored Plates. Vol. I, Twelfth Series. Cloth, \$2.50. Pages, 302. Size, 6 x 9½ inches. J. B. Lippincott & Co., Publishers, Philadelphia, Pa., 1902.

In this book Dr. Cattell has enjoyed the collaboration of some of the best known physicians and surgeons in the country. The list of collaborators includes John B. Murphy, M. D., of Chicago; Alexander D. Blackader, M. D., of Montreal; H. C. Wood, M. D., of Philadelphia; T. M. Rotch, M. D., of Boston; E. Landolt, M. D., of Paris; Thomas G. Morton, M. D., of Philadelphia; James J. Walsh, M. D., of New York; J. W. Ballantyne, M. D., of Edinburgh; and John Harold, M. D., of London. The arrangement of subject matter is well calculated for ease in finding a desired note and some subjects of interest to the profession, though not necessarily a part of the practice of medicine and surgery, are to be found. Guy Hinsdale, A. M., M. D., contributes biographical sketches of S. Weir Mitchell and John A. Wyeth, which are illustrated with portraits of the subjects.

Under the head of Therapeutics Dr. Arthur V. Meigs contributes a paper on the use of opium in daily practice and finds much to recommend in this narcotic as a medicament. Prof. Hallopeau has an interesting paper on Acne and its treatment, and under the special head of Medicine Charles E. Simon treats of the occurrence of basophilic granules in chronic lead poisoning, while John C. Hemmeter is the author of a valuable paper on autointoxication.

Surgery is represented by six contributions, among which are a report of one of William L. Rodman's clinics, especially interesting to students, and a paper from Frederick Griffith's pen, dealing with the care necessary in handling syphilitics. A. Boissard, accoucheur at the Tenon hospital, Paris, gives his view of the contest between the advocates of symphyseotomy and the partisans of Caesarean section. He lays it down as his opinion that when the mother is at full term and the length of the minimum diameter is less than seven centimetres, the tendency is toward the Caesarean section rather than section of the symphysis pubis. He cites several Caesarean sections, done by himself, in which both mother and child were saved.

Under the head of diseases of the ear B. Alex. Randall has an article on deposit of chalk in the tympanic membrane, following an attack of small-pox, which is of great interest.

Edward Willard Watson writes of the progress in medicine in the year 1901, citing the discoveries made along the lines of treatment for small-pox, tuberculosis and other diseases, and touching upon the present status of the X-rays in practice. A number of new instruments and devices are illustrated and described.

The publishers have dressed the book attractively and the press-work is excellent.

The International Text-Book of Surgery by American and British Authors. Edited by J. Collins Warren, M. D., LL. D., Professor of Surgery in Harvard Medical School; Surgeon to the Massachusetts General Hospital; and A. Pearce Gould, M. S., F. R. C. S., Surgeon to Middlesex Hospital; Lecturer on Practical Surgery and Teacher of Operative Surgery, Middlesex Hospital Medical School; Member of Court of Examiners of the Royal College of Surgeons, England. Vol. I. General and

Operative Surgery. With 458 Illustrations in the Text and 9 Full-Page Plates in Colors. Pages, 918. Size, 6 x 9½. Cloth, \$5.00 net, per volume; Calf or half morocco, \$6.00 net. per volume. W. B. Saunders & Co., Publishers, 925 Walnut St., Philadelphia, Pa.

Massachusetts and Middlesex have joined forces for the editing of this work and the result of the collaboration has been most successful. Prefatory attention is called to the large number of works on surgery already in existence and the editors state that in spite of there being so many there is still room for a work of reference untrammelled by many of the traditions of the past and presenting the results of modern progress discriminatingly. With this end in view the editors have gone carefully to work on the subject in hand, aiming to be clear and to the point, and laying most emphasis on the profession's present knowledge of surgical pathology, symptomatology and diagnosis, with a sufficiently detailed account of treatment to make the work of practical value. Dr. F. B. Lund, of Boston, assisted materially in the work of editing.

The work is the first volume, and deals entirely with general surgery, leaving the consideration of special surgery to a second volume, which is promised shortly. Twenty-seven writers of authority have contributed to the volume in hand and as all of them are modern practitioners of surgery the old and traditional has been left out of their writings, only practical modern ideas receiving their attention.

There are twenty-seven chapters in the book, each written by one or more specialists in the special topic under discussion. For example, the technic of aseptic surgery is written of by Charles McBurney, of New York; Howard D. Collins, of Columbia University; and Frank Oastler, of the Roosevelt Hospital. Surgery

of the Spine is contributed by C. H. Golding Bird, Surgeon to Guy's Hospital, London, assisted by Guy Bellingham Smith, registrar of the hospital. J. Collins Warren writes on Hospital Gangrene and Tetanus and Minor Surgery is handled by Prof. DaCosta, of Philadelphia.

Evidences of careful editing are to be found in the clearness of language and concept that is everywhere evident and the arrangement of subject matter in order is also a feature of the work of contributor and editor alike. The illustrations are remarkably well chosen, many of them being taken specially for the written articles, and including a large number of interesting photographs of specimens from some of the best known hospitals. The writers of the book naturally have a great interest in the mechanical apparatus of surgery and there are numerous illustrations of material of this kind. The color plates are handsomely printed and careful publishing is a characteristic of the book. We shall watch with interest for the second volume.

The Neuroses of the Genito-Urinary System in the Male, with Sterility and Impotence. By Dr. R. Ultzmann, Professor of Genito-Urinary Diseases in the University of Vienna. Second Edition, Revised, with notes and a supplementary article on Nervous Impotence by the translator, Gardner W. Allen, M. D., Surgeon in the Genito-Urinary Department of the Boston Dispensary; Instructor in Genito-Urinary Surgery in Tuft's Medical College. Illustrated. Pages, 198. 12mo: Price, extra cloth, delivered, \$1.00 net. Philadelphia; F. A. Davis Co., Publishers, 1914-1916 Cherry St.

It is now twelve years since Dr. Allen issued the first edition of Ultzmann's monographs on the subject in which he was so well versed. Practically the only

charge that has been made in the work is the addition of the translator's own article on nervous forms of impotence. The addition of a few notes serve to make clear the text of Ultzmann and the article on nervous impotence brings the consideration of the general subject down to date. The fact that the two monographs originally written by Ultzmann deal with subjects closely allied give rise to a good many repetitions, which the translator has done away with to a large extent by omitting duplications. Whenever the same topic comes up for consideration the reader is referred to the first part of the book, where the special subject is treated at some length.

The interest of the profession is naturally directed toward cases of impotence and sterility in the male, and any work that deals helpfully with these subjects is valuable to the general practitioner and the specialist alike. As a matter of course, the surgical side of treatment receives the most attention, Dr. Allen being greatly interested in that branch of his profession.

Local treatment is advocated as the best method of treatment and suggestions are made for the stimulation of the sphincter vesicae through the rectum by means of the electric current. Speaking of the treatment of disorders of the class already mentioned, in children, the use of a metallic pin 7 cm. long and of the diameter of a lead pencil is suggested. This forms one pole of the induced current and the other pole consists of the ordinary sponge-holder. In the treatment of boys the sponge-holder is placed on the raphe of the perineum; in girls it is placed in the crease of the buttock. The current, it is noted, must be very weak for the first applications, as children are easily frightened. The sittings are to last from five to ten minutes, and the treatments are continued through the course of four or five weeks.

Numerous illustrations, chiefly of the urinary conditions that obtain in diseased conditions of the genito-urinary system, are scattered throughout the book. The work, though small and compact, contains a great deal that is of benefit to the practitioner, and the discussion of nervous impotence by Dr. Allen is a valuable addition to a book that has already enjoyed a popularity with its readers in keeping with its capacity for instruction.

Seven Principle Routes.—It is a well known fact that the C., M. & St. P. Ry. system offers a great many different routes between Chicago and St. Paul and Minneapolis. Its main line between those points is especially well known as the route over which runs the famous "Pioneer Limited" and the Government Fast Mail Train.

There are six or seven other routes over a number of which are run through coaches and sleeping cars, which are almost as direct as the principal main line.

These various routes traverse the most interesting and attractive sections of Illinois, Wisconsin, Iowa and Minnesota, including the celebrated "Lake Region" of Wisconsin, and cross the Wisconsin river at the famous "Dells," where is the most picturesque scenery in the Northwest.

The main line and several others include from 150 to 300 miles of romantic and picturesque scenery along the Mississippi river. On these various lines are located the most important towns and cities in the Northwest.

Both one way and special excursion tickets between Chicago, St. Paul and Minneapolis are honored via any one of these direct lines.

The teachers attending the National Educational Convention at Minneapolis will appreciate and take advantage of this fact as they can have a choice of routes going and returning.

Bromoform Syrup.—A clear mixture that will not become turbid is made in the following proportion:

Bromoform	15 grains
Alcohol (95%).....	135 grains
Glycerin	450 grains
Syrup	5 ounces



ORIGINAL ARTICLES

VENTRO-SUSPENSION.*

By New Method.

With the Maguire Ventro-Suspension Forceps.

BY F. J. W. MAGUIRE, B. S., M. D.

It seems, at this late date, that the pelvis has been so thoroughly ransacked by gynaecologists who have made themselves renowned by their skillful researches, that there is very little left for their successors to do. Consequently when one sees the slightest chance for mere suggestion, it may seem a mountain to his eyes whereas it is only a mole-hill to his older professional brethren.

The use of the writer's ventro-suspension forceps was first suggested to him after making several attempts to pick up a very stubbornly retroflected uterus. This difficulty has been avoided since using this instrument.

These ventro-suspension forceps which I wish to introduce to the profession are original with me, so far as I know, and I hope they will be used by the gynaecolo-

gists with the same happy results as by the writer. The forceps have proved themselves very valuable to me, especially in cases in which the uterus is completely retroflected and curled up in the posterior cul-de-sac, which condition would necessitate a great deal of manipulation in the abdominal cavity, which circumstance is the most difficult portion of the technique of the operation.

The chief objects of this instrument are: it shortens the time of the operation; it facilitates fishing out the fundus uteri; it lessens the danger of sepsis and of lacerating the approximate organs. When the forceps are introduced into the uterus and locked, and the uterus is free from adhesions, the instrument will have complete control over the position of the uterus. The weight of the handles, when released by the operator's hand, will almost throw the uterus into its proper contour, the fundus can be felt a few inches above the pubis, thereby making a landmark on the abdomen, showing the exact spot for the incision.

*Read before the Michigan Medical Society, Port Huron, Mich., June 27, 1902.

Suspension should always be done when women suffer with decided symptoms of a retro-flection of the uterus, and when the history shows that they have taken local treatment from Doctors Brown and Jones, and are now going to place their case in your hands. These unfortunate patients will always give the history that they have felt better while under treatment by the tampon method of support, and are known as the patients who are tied to the physician's office.

No young woman who is married and bearing children should have the uterus suspended, no matter how persistent her symptoms. The writer has avoided operating on this class of patients.

Cases of retro-flection should not be operated upon where the uterus or appendages have been infected with gonorrhœa or otherwise, as you are adding more fuel to the fire by anchoring up an inflamed uterus which will make the patient worse.

Again, patients should not be operated upon without long continued treatment by rest, tampon or pessary which have been well tested to the satisfaction and circumstances of the patient.

Where the surgeon is in doubt as to the probable effect of an operation for retro-flection, he may lift the uterus and support it on a tampon. If this affords relief the discomfort may be considered due to the retro-flection.

It is not the use of this operation but the abuse that should receive condemnation, for, where properly diagnosed cases are selected there is no reason why these patients should not make a rapid recovery.

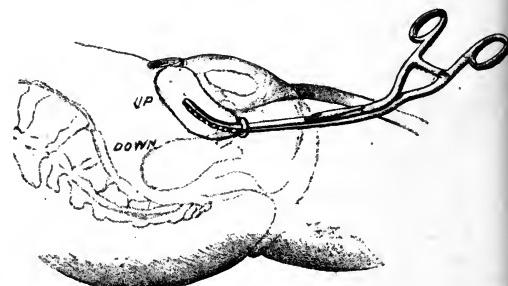
The physicians who allow a woman to suffer with these displacements when this simple operation will relieve, and in the majority of cases permanently cure, are behind the times.

"No chain is stronger than its weakest

link," no ligament is stronger than its weakest fibre, therefore let us consider giving these weak ligaments a rest by making a new ligament, which is the object of the ventro-suspension operation.

Mode of Operation:

The patient is placed on the operating table in the usual way for an ordinary curettage; the usual antiseptic precautions having been taken, the patient being thoroughly under an anaesthetic, the uterus is dilated and curedtted, then the ventro-suspension forceps are introduced and locked. The patient is then placed in the Trendelenburg or ordinary laparotomy position. The field of the operation should be antiseptically prepared by the assistant while the operator removes his



rubber gloves which it is advisable to wear while doing the vaginal portion of the operation, or while performing the laparotomy, to insure thorough asepsis.

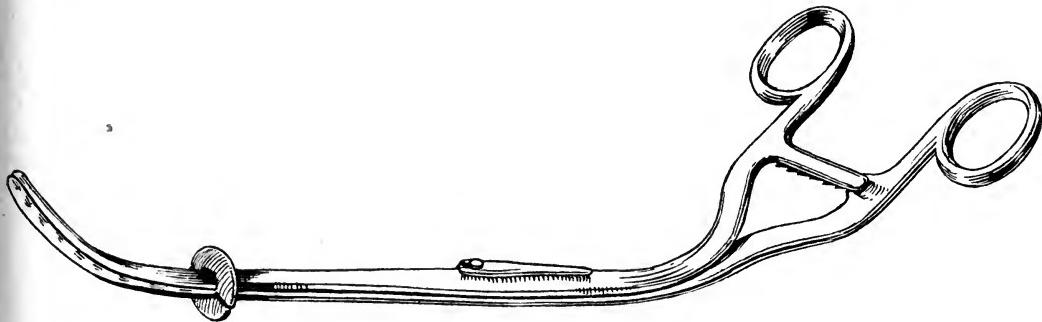
An incision one and a half inches in length is made in the median line of the anterior abdominal wall above the pubis at the landmark made by the contact of the elevated uterus against the abdominal wall; the peritoneum once opened, the index finger is introduced to explore the field of operation for adhesions, prolapsed ovaries, or tumors; and also, to confirm the diagnosis. The assistant then bears down on the handles of the ventro-suspension forceps which throws the uterus into view in the incision.

A tenaculum forceps is introduced into the abdominal cavity, the uterus is

grasped by the posterior wall of the fundus about at the center. A curved needle, with suture of kangaroo tendon, medium size, is passed through the peritoneum on the inner surface, then into the posterior wall of the fundus uteri, taking up a portion of the uterine tissue a quarter of an inch in breadth and an eighth of an inch in depth. The needle is then carried through the peritoneal tissue on the opposite side of the incision at a point corresponding to the first side, then a suture parallel to this is passed in the same way about a quarter of an inch from it; at the point where I wish the ad-

abdominal wall. The suspensory sutures are now tied and the ends cut off close to the knot; then the two other silkworm sutures which are used to close the incision are drawn together and tied; lastly the keeper suture is drawn together and a piece of iodoform gauze is placed under the suture to prevent its cutting through the skin as the weight and strain of the uterus comes on this suture which is now drawn tightly together on the iodoform gauze pad and firmly tied.

The ventro-suspension forceps are now removed, and the vagina packed with iodoform gauze to support the uterus. The



hesion to take place, I make an abrasion on the mucous membrane by a few slight scratches. Then I pass a silkworm suture through the skin, muscle, peritoneum and the uterus, midway between the other two kangaroo sutures, which I call the keeper suture; this is taken a little deeper in the uterine tissue to prevent its cutting through when under strain. The other necessary silkworm sutures for closing the incision are passed through the skin, muscle and peritoneum, then the kangaroo tendons are drawn together and pulled tight and the three points transfixed by this,—that is, the uterus and the peritoneum on both sides are brought snugly together; a finger is introduced before tying the sutures and a careful examination is made to make sure that no loop of intestines or omentum has been caught between the uterus and

abdominal wound is protected by moist, then dry layers of bi-chloride gauze, the bandage very tightly pinned. Thus the operation is finished.

Statistics:

The writer has operated upon over 150 cases in the past seven years, all of which recovered from the operation; the majority of them from whom I have heard were much relieved, if not entirely cured. They ranged in age from 19 to 65 years. Ten were married at periods ranging from two to five years after operation; seven became pregnant, one miscarried at three months, two felt very miserable during pregnancy. The one had very hard labor but had no bad after effects; the other continues to feel miserable though she had normal labor. In one case, the uterus broke loose seven months after the operation; two had no bad effects.

In one case, Miss F., trained nurse, the uterus broke loose from the straining of nausea and vomiting. On the eighth day after the operation I re-opened the incision and found the uterus had broken loose and that an adhesion had formed between the abrasion of the uterus and the intestine which was such that I thought it advisable to leave it alone and suspend the uterus from its anterior surface. The patient made a speedy recovery and has had no trouble since; she was relieved of a backache she had had for fifteen years.

780 Jefferson Ave.

Doctors, Beware of Gifts.—A case of great importance to the medical profession has been recently decided in the law courts. The action was brought by the executors of an old lady of eighty to recover from a medical practitioner at Bromley £800. It appears that the money was given to him in four several sums, one of £500, and three of £100 each. The first gift was made in September, 1899, and the last a few days before her death, which took place on March 23rd, 1900. The executors brought no charge against the defendant of fraud or misrepresentation, or any direct or indirect misconduct in obtaining the money, but simply that, having regard to his position as medical attendant upon the deceased, he was incapacitated from receiving or retaining gifts when the donor had no independent advice. Neither was it alleged that the deceased was not in a perfectly competent mental condition. The case was heard last week by Mr. Justice Swinford Eady in the Chancery Division. The Judge ruled in favor of the plaintiff, and said on the admitted facts the defendant must repay the whole of the money with interest. It seemed to his Lordship that it was of the greatest importance to give full force to the rule that forbade gifts from patients to medical attendants unless the donors had independent advice. A stay of execution was granted to allow an opportunity of appealing against this judgment. The application of a similar principle would render nugatory a great

many gifts to churches, to charitable institutions, and to private individuals. Meanwhile, any medical men who are fortunate enough to meet with patients who are grateful as well as wealthy will do well to bear the above case in mind.—(*Medical Press and Circular.*)

Teachers Must be Developed.—The *Boston Medical and Surgical Journal* suggests that more careful development on the part of medical teachers is a desideratum. It says editorially: "The development of teachers has never been assiduously prosecuted in medical education. The best investigators are often indifferent teachers; this is proverbial. It has long stood in the way of effective instruction whenever universities exist, and will no doubt continue to do so, to a greater or less extent. Nevertheless, we look forward to the time when men will be selected to teach because they have capacity in that direction, and not because they have attained distinction in some quite alien field. Teachers should be cultivated, just as we attempt to develop investigators; men who show aptitude should be given opportunities and not be suppressed. Medical education would certainly thereby be a gainer, and we should hear fewer complaints from the intelligent student body."

Locality Diseases.—Lombardy is the one place where pellagra is always prevalent—that mysterious modern ailment, due to eating damaged maize, which since 1833, when it was first noticed, is computed to have been responsible for the death of more than 500,000 peasants. Mandalay ring-worm, again, is known and dreaded throughout Burmah; but even the most ignorant Burmese is aware that it cannot be contracted outside the ancient capital. Similarly, "Rock" fever is confined to Gibraltar; although it is probable that the ailment known as Maltese fever, which can be contracted only in Malta, and there only in the spring and autumn, is closely allied to it. Aleppo evil, too, is unknown in any of the other cities of Asia Minor; just as the Delhi boil, so dreaded of our soldiery, is confined to Delhi.—(*Chambers' Journal.*)

SOME CONSIDERATIONS OF GONORRHOEA.*

BY

WILLIAM A. SPITZLEY, B. A., M. D.

During my service at the University of Michigan, it fell to my lot to have a rather varied and somewhat extensive experience with this disease, Gonorrhœa or Urethral Blenorhœa, as it was called in the old days; and I am minded to say a few things about it, not alone because of the wide-spread disaster it occasions in its acute, nor because of the continued and recurrent troubles it induces in its chronic form, but also because I fear it is one of the unpleasantnesses which the medical world at large is inclined to pass lightly by, or even to cast aside. And yet its baneful possibilities are tremendous; it is said by Neisser to be second in its prevalence only to measles: and the complications and sequelæ to which it may justly lay claim are legion. The vicious little organism, made known to us by Neisser in 1879 is now known not to limit its attacks to mucous membranes alone but, at times, to invade the entire organism and even to destroy life itself. No part of the body is exempt from its onslaughts—the eyes, joints, muscles, spinal cord and even the heart are vulnerable: and recently Klemperer and others have recovered it from the blood.

It is not the inconvenience nor even the discomfort of painful micturition and of urethral discharge endured by the individual afflicted with acute gonorrhœal urethritis, that makes the disease worthy of serious consideration, any more than it is the physical presence of a splinter of wood in a man's finger that makes us remove the offending body and care properly for the wound it has caused. It is the possibility, even probability, of the involvement of other parts of the same or-

ganism, of the spreading of the disease to another organism and in that organism producing similar morbid changes that makes it one's duty to give careful attention to this infectious process, bearing in mind not only the present health of the afflicted individual but his future health and welfare as well; further still, the health and welfare of those with whom he may later come into close family relationship. The disease does not end with the subsidence of the urethral discharge nor even with the healing of the ulcers; it may remain latent in the form of gonococci encysted in the submucosa, packed at the bottom of a follicle, lying in the prostate or elsewhere for months or years; and it may upon proper provocation break out anew and attack the individual with all its primary energy: more than that, if the afflicted one be a man, it may make itself known by an infection quite up to the standard of its original severity in his wife. Then may follow a train of troubles about which gynaecologists may tell you without end—vaginitis, endometritis, pelvic abscess, often death—all from a despicable little infection in the urethral canal, which has been carelessly or ignorantly attended to. Or—and it is unfortunate that this must in all truth be said—which has been carefully and intelligently treated and which, in spite of that care, has such dire consequences.

Considerations of the etiology of acute gonorrhœa need take up but little of our time; given suitable soil and an opportunity for implantation, the specific diplococcus soon establishes itself. True, the question of concomitant or secondary infection with other pus-producing organisms, in its bearing on the cause, severity and extent of the lesions, is of importance, but the gonococcus in the leader, the general of the invaders.

Nor need we puzzle long over the diag-

*Read before the Detroit Medical Society,
May 7, 1902.

nosis: the history of exposure to possible infection—nearly all cases of so-called innocent acquisitions of urethral gonorrhœa are kindly perversions of the truth—gives us the lead. As Valentine aptly quotes Taylor: "Such acquisition from a foul privy or urinal may be looked upon as a euphemism to be used in the case of some clerical, venerable or married transgressor." The history, then the itching or burning of the urethral canal, the swelling of the lips of the meatus, followed in a day, or week, or even two weeks, by the mucoid, muco-purulent and ultimately purulent discharge, presents to the observer a picture to which the evidence of the microscope need scarcely be added for corroboration. The microscope should nevertheless always be used to decide the specific nature of the condition, since not infrequently one sees urethral discharges which come as the result of contact with vaginae containing foul and filthy secretions, free from the gonococcus; and other discharges, which come from the hyperenthusiasm of the transgressor in his efforts to rid himself of the possibility of infection by the use of somewhat powerful injections.

It is unfortunate that the gonorrhœal patient usually waits to seek advice not only until the discharge appears at the meatus but usually until it has appeared several days successively, when, as he says, he is sure that it is really there. The course of many cases could unquestionably be materially shortened, were it possible to institute measures of treatment soon after exposure. The old-time idea that it was in some way harmful to start local treatment before the acute stage had passed by, is a mistaken one. One does not allow every case of simple tonsillitis to go unattended until the deeper tissues become affected and a tonsillar or peritonsillar abscess is formed; nor does one allow a simple cellulitis to

go unrestricted until it is certain that suppuration is present. No more should superficial urethral infection be neglected, since in protracted cases, practically every focus becomes a small abscess, the cavity of which lies in the submucosa, discharging its contents through a large or a small fistula into the urethra. The organisms do not immediately dig down into the tissues and plant themselves therein; they must necessarily at first be upon the surface, gradually encroaching upon the tissues, until finally they become deep-seated. If early treatment will remove or destroy only a few of these organisms, while they are still at or near the surface of the mucosa, striving for entrance to the deeper layers, then so much at least will have been gained. On that principle it has been and is my custom invariably to institute local treatment as soon as a suspicious case comes under my care, even before absolute proof of specific infection is obtained; and the conclusion has been forced upon me from observation of several hundreds of cases that those which were placed under local treatment early, even before the appearance of any discharge whatsoever, invariably were less severe and less protracted. There is no doubt that some patients were irrigated—for irrigation has without exception been my way of handling these cases—who had no infection of any kind and some who had mild, non-specific infections, but since the greatest possible attention was always paid to cleanliness no harm was done. Also, it must be borne in mind that some of these cases might have been very light ones, even if treatment had not been started until long after the discharge was well established. Still, the favorable course which all early treatment cases did, in my experience follow, makes it reasonable to suppose that the time factor had much to do with them. Many men have contended that

early local interference was apt to induce certain complications, notably epididymitis and orchitis; my observation has gone to show quite the reverse, those cases presenting as a rule less tendency to complications than the others.

Consideration of the treatment of acute gonorrhœa in the male may be made almost endless: the methods are many, the drugs and nostrums offered numberless; but one has only to note this fact in order to know that there is no ideal method and no successful specific medicament. The certainty of cure of any morbid condition usually varies in inverse proportion to the number of sure cures and infallible methods of cure that one finds claimed for it. This is especially true of gonorrhœa.

It would scarcely be profitable to take up the different chemicals and combinations of chemicals offered to us and discuss their usefulness. It is my purpose rather to present the plan of treatment which it has been my custom to employ and in the employment of which I have found considerable satisfaction. It is understood of course that the author has in mind only acute gonorrhœa, considered under the two heads of acute anterior and acute posterior urethritis.

When a patient consults me, after obtaining a history of the case, I try to determine, if possible, the location of the lesion or lesions; to determine, in other words, whether the infection is in the anterior or the posterior urethra or in both portions of the canal.

The clinical signs and symptoms are of importance: frequency of micturition simply tells us that there is an intrarectal irritation, the reflex effect of which is to stimulate the patient's desire to urinate. The appearance of a gonorrhœal discharge very soon after exposure usually means that implantation has taken place early and in the anterior end

of the canal. This is of course by no means without exception. Pain is of diagnostic value; if it is present only during the act of micturition and is located absolutely in the anterior urethra, the area of infection is probably anterior: if more or less constant and deep in the perineum or rectum, the infection is apt to be found in the posterior urethra. Vesical spasm, tenesmus, blood—especially when appearing at the end of the act of micturition—are usually associated with involvement of the deep urethra and the vesical neck. The two or three glass urine test, familiar to all acquainted with genito-urinary work, helps us in locating the seat of chief infection. The test absolute is the urethroscope; and whenever it is possible, it should be used. Sometimes on account of swelling or pain, a patient will not endure it. However, in many cases it becomes possible to employ the urethroscope after a copious warm urethral irrigation, when without the irrigation it could not have been used without great distress to the patient.

Before handling a case of gonorrhœa at all, whether it be for instrumentation, urethroscopy or what not, the author irrigates it, being careful before introducing the stream into the canal, to wash the meatal orifice, the glans penis, the prepuce, the preputial folds and the coronal sulcus, thereby mechanically diminishing the probability of contaminating the patient or himself.

After determining that specific gonorrhœal urethritis exists, one should preferably irrigate also the anterior urethra, though it is a question whether or not the infection is ever carried backward in a properly conducted irrigation, even if in every instance the irrigating fluid is forced into the bladder and voluntarily passed by the patient. The apparatus for irrigation consists of a receiver containing the fluid, elevated enough to in-

sure sufficient strength of stream for washing, a tube connecting this with a suitable conical urethral tip, made preferably of glass, so that it can be sterilized by boiling, each time after it is used; and a stop-cock so arranged that it can be adjusted by the same hand which handles the tip while applying it to the meatus. The so-called Valentine irrigator has come into popular use because it combines these requisites in convenient form. The technique of urethral irrigation is comparatively simple; the patient sits upon a chair, well toward the front edge, holding a vessel between his well-spread thighs to receive the fluid on its return from the canal: the operator sits or stands slightly to the right and in front of the patient. The irrigating tip is manipulated by the operator's right hand, the left hand with palm down and ulnar side toward patient's belly grasping the penis. The manner of holding the penis is of importance, because by making proper compression of the urethra between the thumb and any of the fingers the operator can regulate the exact point to which the irrigating fluid shall enter; in other words, it is by just such compression that irrigation can be restricted to the anterior urethra when it is desired that only that portion of the canal shall be irrigated. Of course the compressor urethrae aids in keeping the fluid from going backward, though if much hydrostatic pressure be used, this resistance is easily overcome. At the beginning of an irrigation the stream should not be directed into the urethra with full force, nor should the tip be pressed firmly into the meatus. The stream should be gradually increased and the tip held at some distance from the meatus unless one distinctly wishes to force the fluid into the bladder. The reason for this is obvious —the chief object of irrigation is to mechanically cleanse the canal by wash-

ing out obnoxious material, and for a successful result free outflow of the fluid is requisite. If the meatus is very small, cut it. A small meatus not only admits too little fluid but, more especially, it does not allow a free enough return flow. Irrigating solutions should always be used warm and in large quantity: by that is meant not less than one, and preferably two quarts for each irrigation.

The question of the chemical nature of the fluid employed must, I think, be determined by each man for himself. For the purpose of determining for myself, if possible, the most satisfactory one, I have made use of the following, each one in not less than 25 consecutive cases: mercuric chloride in different strengths, carbolic acid, boracic acid, hydrogen peroxide, permanganate of potash, acetozone, salt solution and sterile water, water, and it must be said that from observations, which were presumably made with care, no one of them recommended itself decidedly above all others. The mechanical cleansing is, according to the author's opinion, the important factor in the irrigation treatment. Mention must be made also of another factor which is said to augment the efficiency of the irrigation treatment. This is the general œdema of the urethral tissues which it induces: this œdema presumably renders the soil less fertile and is therefore antagonistic to the well-being of the invading organisms. The question is often asked: "Why do you irrigate cases, when for years germicidal and antiseptic injections successfully conquered the disease?" The answer embraces several points: no injection, or irrigation for that matter, has ever really conquered the disease. Gonorrhœa is a more or less self-limited infection and we conquer it only as we help the affected organism by assisting Nature in her efforts to overcome the infection; and by irrigation this

assistance is most rationally and successfully given. Further, only experience will demonstrate to one the relief which gentle warm irrigations afford the suffering patient.

The frequency with which irrigations are to be given depends usually upon the number of times the patient will come to the office for treatment. Certainly there should be one or two daily; three if the discharge accumulates rapidly, are desirable; no patient ever received any harm from a proper and gentle washing. As the case progresses and the discharge diminishes or disappears, the number of daily washings may be reduced. The results of this treatment of acute anterior urethritis have, in the author's experience, been uniformly satisfactory; he is not able to report any remarkable few-day or one-week cures; on the other hand, he can report that no case, of which he has had continuous charge, has been unduly protracted. The patients have uniformly received early relief from painful or distressing symptoms and have progressed satisfactorily to recovery.

In acute posterior urethritis, the actual discharge is apt to be less copious, though the purulent material is produced in just as great quantities as in anterior infections. The reason for this is the barrier which the compressor muscle offers to the free outflow of the pus. The vesical sphincter is less strong than the compressor, hence some of the pus probably always enters the bladder. In fact Finger says that every case of posterior urethritis is one of urethro-cystitis. It is of course impossible to irrigate the posterior urethra without irrigating the anterior as well. It is very difficult to irrigate the posterior urethra without having some of the fluid enter the bladder. Therefore in cases of posterior infection, intra-vesical injections are nearly always practiced. The dangers therefrom are

very slight, practically nil; it is not easy to infect the healthy bladder. Furthermore, the patient is made to empty his bladder immediately after irrigation, and as an additional safeguard, the author usually washes out the bladder two or three times, and there has never been general vesical infection as the result of such irrigation. In fact, one of the most striking things noticed has been the exceedingly small number of complications of any kind developed in either anterior or posterior acute urethritis.

In posterior infections, if there is no history of a former gonorrhœa, the questions of narrowings or strictures of the canal need not be considered. If, however, there has been a previous attack, this question must always be taken into account, because no infection lying proximal to an organic stricture can be removed unless the stricture receives proper attention. The irrigations in posterior urethritis are conducted with about the same frequency as in the acute form. Sometimes toward the end of treatment it is advisable to use the urethroscope and treat the still unhealed places of infection directly through the urethoscopic tube, this to be done when the infection has practically disappeared and the healing areas require some stimulation. At the end of a case, also, the urethroscope should be used to determine positively that no such unhealed areas exist.

The general, or systemic, treatment of gonorrhœa may be covered in a few words. All hygienic measures tending to assist the well-being of the patient are useful. Alcoholic indulgence must be prohibited; free partaking of all other fluids should be encouraged. There is little gained in restricting the diet, provided the stomach and intestines take proper care of the food. Specific internal medication is unsatisfactory; in gen-

eral it may be said that such medicaments are beneficial only as they assist diuresis: The so-called urinary antiseptics, Santal oil, Saw palmetto, boracic acid and so forth should be of considerable help, theoretically, and probably, to some extent, are.

In a word, the author's experience with urethral irrigations in acute gonorrhœal infections shows results which may be said to be quite satisfactory. There have been few complications, the course of the disease has been moderately short, never less than 10 days, never more—and that in exceptionally few cases—than five or six weeks. It must be understood that this is true only of such cases as were under the author's observation and treatment throughout the course of the infection. Patients were made comfortable almost from the beginning of the treatment. No patient was discharged until it had been determined as positively as possible by urethroscope and microscope that the areas of infection were healed; and few patients returned with recurrence, except where such recurrence was traceable to a possible new infection.

270 Woodward Avenue.

Re Biliousness.—“S. P. T.” in the *Western Medical Journal*, voices the following forceful lay on the question of nomenclature:

If these very learned doctors, revolutionizing things;

If these diagnostic ace spots and these therapeutic kings

Will just lend an ear a moment, I will ask them kindly this:

It's the question of a foggy, but it surely ain't amiss:

“Will you tell an old time doctor (if it's any of his biz),

If biliousness now isn't, just what in—it is?

When the face is dead and yellow and the tongue is coated white,

When a fellow is so dizzy that he can't tell day from night,

When his mouth tastes like damnation (though he hasn't had a drink),

If that ain't bilious, brothers, just tell me what you think.

It may be grand gyratus or some such learned name,

With a pathologic basis and the Latin for the same,

But call it what you've mind to, to me its more than like

That the patient's good and bilious, with a liver on a strike.

With calomel I'd soak him, like all you learned men,

And bilious or gyratus, he'll soon be well again.

And I repeat my question, (if it's any of my biz),

If biliousness now isn't it, will you tell me what it is?

Where Jane's Pain Was.—A dear little boy whose winter home is in the Oranges in New Jersey, and whose summer home is at Glen Summit, Pa., but whose identity shall not be further disclosed, attended a dame school last winter and, on an occasion when visitors were announced, took part in exercises in their honor. The exercises comprised recitations by the brighter children, and among them this dear little boy was called on. He recited in perfectly good faith the following, which he had learned or caught from an indulgent nurse with semi-poetical instinct:

Jane ate cake and Jane ate jelly,
Jane went to bed with a pain in her—

Now don't get excited,
Don't be misled,

For what Jane had was a pain in her head.

When the youngster told of this to his entirely surprised and somewhat shocked parents they asked him:

“What did the teacher say?”

He replied: “She said nothing. She just turned around and looked out of the window, but the scholars and the visitors wanted me to say it again.”—(*Brooklyn Eagle.*)

Ice for Respiratory Haemorrhages.—

Ice applied to the external genitals—the scrotum in men, the labia in women—is said to be the best and simplest method for controlling blood-spitting and nose-bleed.—(*Canada Medical Record.*)

THE ADVISABILITY OF EARLY SURGICAL INTERFERENCE IN ACUTE TYMPANO- MASTOIDITIS.*

BY EMIL AMBERG, M. D.,
Detroit, Mich.

Since Schwartzé, of Halle, reintroduced the mastoid operation and placed it on a scientific foundation, a change has taken place in the views of the medical world in general in regard to surgical interference in affections of the middle ear and adjacent parts. If we consider that about twenty years elapsed from the time that the tubercle bacillus was discovered until the necessity of rational preventive measures became familiar to the profession and the public, we little wonder that it has required about three decades before firm rules have found their enforcement in otology, which only recently is gaining the recognition due to its importance. Surgical interference in affections of the middle ear is becoming recognized only after the unceasing efforts of those whose better insight place the duty upon them to show that the use of the knife is not only justified but imperative under certain conditions.

How does it happen that a more rational therapy for ear affections of the acute type has only recently been more generally accepted?

We should consider the following:

1. Tympano-mastoiditis is sometimes not diagnosed.

2. Only lately has it been recognized that complications of a middle ear suppuration are very frequently preventable if the mastoid operation is performed soon enough. These complications can mostly be headed off by dealing surgically, at an early date with ear suppurations by removing the focus of infection.

3. Brain abscesses and other complications of middle ear suppuration give a

doubtful prognosis, even if surgically interfered with.

4. The mastoid operation itself is, in the very great majority of cases, free of any danger, if performed by trained hands.

5. An early operation in cases which may, perhaps, get well without operation hastens recovery.

6. Exploratory operation is not only justified but sometimes imperative.

Time and occasion prevent me from entering upon a lengthy discussion of all points. Let us only consider at random some views corroborating my statements.

1. It is very probable that tympano-mastoiditis is a much more frequent affection than is generally supposed.

Dr. Hammond, of Boston, says: (I) "Many times I have had the statement made to me by physicians that they have been in practice twenty years, we will say, and have never seen a case of mastoiditis, and almost in the next breath ask: 'What are the symptoms?'"

2. That suppurations in the tympano-mastoideal cavity, if left alone, frequently lead to fatal complications is well known.

Koerner says: (II) "Pitt found in nine thousand autopsies in Guy's Hospital, 1869-1888, 57 deaths by ear suppuration, (1:158); Gruber, Wiener Allgemeines Krankenhaus, 1873-1894, in 40,073 post mortems, 232 (1:173); Poulson, in 14,580 post-mortems, Kogenhagren, 1870-1895, 48 by ear suppuration (1:303). Of ear patients 0.3% die, according to Buerkner and Randall.

Koerner compiled the results of 115 autopsies and found that:

41 patients died of Sinus phlebitis and thrombosis,

43 patients died of Brain Abscess,

31 patients died of Meningitis.

Dr. E Oliver Bell (III) says: In this country 4,000 deaths which occur annual-

*Read before the Michigan Medical Society, Port Huron, Mich., June 27, 1902.

ly from abscesses of the brain are attributed principally to suppuration of the middle ear."

Others say that one-third of all brain abscesses are caused by middle ear suppuration.

3. That it is more difficult to deal with complications arising from tympano-mastoiditis is apparent. Sinus-phlebitis and thrombosis, brain abscesses and meningitis, do not permit us to give an entirely favorable prognosis even if surgical interference is resorted to.

Dr. Brindel, of Bordeaux (IV), in an excellent article, speaks of a case in which the presence of brain complications was apparent six days after the ear affection started. He further says that in some of the patients meningeal prodromal symptoms appeared on the sixth, in some on the 12th, the 14th and the 55th day after the suppuration in the ear began. He says:

"To wait with operating until meningo-encephalitic symptoms appear means to allow us to become checkmated almost with certainty. It is better to prevent them by liberally opening the apophysis. Each time when we witnessed interference, or when we interfered ourselves when there was no brain complication present, we had only noted success. On the other hand, we have seen, at various times, patients succumb to brain complications who refused operation before those symptoms appeared."

Dr. Brindel comes to the following conclusion: "Demonstrating by the experience which we have had and which we have daily in the ear clinic of the faculty of Bordeaux, the dangers of waiting in ear suppuration, I have tried to bring forward the necessity to discover and to treat as quickly as possible the most common complication, the mastoiditis, under whatever form it presents itself."

We readily see that the diseased middle ear and its relations to the adjacent parts can very well be compared with diseased organs in the abdominal cavity. In abdominal work, be it an affection of the gall-bladder or of the appendix, etc., early operation gives good results. Adhesions or peritonitis make an otherwise easy operation difficult and do not admit of such a favorable prognosis. In diseases of the ear the same can be said of sinusphlebitis, meningitis, etc.

4. That the mastoid operation is free of danger in the very great majority of cases if performed by skillful hands can be seen by the fact that in late years a total facial paralysis caused by injury of the facial nerve seems to be a very rare occurrence. As reasons for this must be given that nowadays aural surgeons who perform operations on the middle ear, have seen the necessity of working on specimens.

If my memory serves me right, I have been told by a German colleague, who did post-graduate work in Berlin at the same time that I did, that he performed the radical operation ninety times, or more, on the specimen, before he dared to do it on the living. It seems to me that work on specimens is indispensable for acquiring the necessary experience.

5. Concerning the fifth point, that patients who may recover without an operation get well more quickly if an operation is performed, we must confess that the statement does not admit of a proof which may be called mathematically correct, because the possibility of indisputable comparison is removed in either instance. We must rely more upon our own and our patients' judgment in general. I do not doubt that a great many aurists who treated patients in whom both ears were affected, but in whom threatening symptoms were only present on one side, will hear, soon after surgical interference,

expressions of surprise on the part of the patient that the operated ear improves more quickly than the other, although it was the worse. We can assume, with a certain degree of correctness, that the operation hastened recovery because the more seriously affected ear improved more quickly than the less serious affected.

6. That an exploratory operation, in case of doubt, is justified, if there do not exist serious contra-indications, can be learned from our previous remarks. Illustrative of this point that it is better to operate in case of doubt, may be the following remarks by Dench (V):

"I have previously reported a number of cases in which extensive mastoid involvement has occurred where the evidences of inflammation of the mastoid were extremely obscure. In all instances when I have operated earlier than my better judgment would have allowed me to do, I have found an extensive destruction of the bony structures."

Even if a number of patients may have been cured without an operation, we can fairly well assume that just as great a number may have died because a simple operation was not performed soon enough. It is better, in my opinion, to operate on a hundred patients of whom even fifty might have been cured without an operation than to risk the life of a single patient by an ultra conservative method. We should consider that early interference is simple and makes conditions, to a comparatively great degree, certain, where they would otherwise remain uncertain.

In conclusion I must express satisfaction that the interest in otology has increased in the State Medical Society. In the year 1900 I had the honor to read the only paper on the ear, and was granted between five and about ten minutes time to read it. In 1901 there was only one

paper on the subject, by Dr. Stockwell, of Port Huron. This year we have four on the programme. May the increased interest continue.

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Got Back at Him.—A city hall employe sends the story of an officeholder who was one of a party that attended the funeral of a Chinaman on a recent Sunday. He took a great deal of interest in the queer services at the grave, and noticed that, among other things, a roasted duck was left there by the departing mourners. Calling one of the "Chinks" aside, he asked:

"Why did you leave that duck on the grave? Do you think the dead man will come and eat it?"

"Yeppe," replied the Boxer sympathizer—"alle samee as le white deadee man come out and smellee flowers."—(*Philadelphia Times*.)

Price too High.—In the June JOURNAL appeared a review of International Clinics, one of the Lippincott publications. By an error, the price was printed at \$2.50. It should have been \$2.00.

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

WALTER C. BOYNTON, Manager.

—ISSUED BY—

THE DETROIT MEDICAL JOURNAL CO.,

NOTE.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, to 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., JULY, 1902.

THANKS.

The management of the JOURNAL wishes to extend sincere thanks to those of its readers who complied with the request in these columns last month, regarding the settlement of accounts due. Many have paid and some have notified the management that it was not necessary to send them the JOURNAL any longer. Thanks are due both classes of correspondents; the former for their appreciation of a live journal, devoted to their interests, and the latter for their courtesy in saving us needless expense in sending them something which they do not need. We know that there are many publications in the medical field; but we also like to think that there is none just exactly like the DETROIT MEDICAL JOURNAL. There have been discouragements and there have been encouragements met with in the conduct of the magazine; but there have been enough of the latter to more than make up for the former. Again we extend our thanks to all those who gave heed to our remarks last month; and we shall esteem it a favor if some of the others will show us the same courtesy this present month.

THE ILLNESS OF THE KING.

On the very eve of the consummation of his highest ambition, King Edward VII, of Great Britain and Ireland, has

been stricken with a disease that threatened to end his life before he could have the crown placed on his head. As we go to press, the royal patient is pronounced to be resting comfortably and to be making as speedy a recovery as could be hoped for under the circumstances. While we sincerely hope that the case of His Majesty may have a happy termination, yet we are mindful of the dangers which attend the progress of a case of appendicitis where the patient is past sixty years of age and of a full habit.

King Edward is fortunate in having his case in charge of the ablest of the British surgeons, who have as a body of men no mean reputation for skill. The subjects of the king have from the first onset of the attack of appendicitis from which their ruler was suffering shown a most gratifying confidence in the ability of the surgeons to cope with whatever emergencies might arise. Yet the task of the surgeons was no light one. A king is not to be treated like an average patient. There are reasons, and grave ones, why he should not be put under the same course of treatment as one of his subjects; a king cannot be dictated to as to the time at which an operation shall be performed.

It must have been a source of infinite satisfaction to the physicians in charge of the case to feel that for the time being, at least, the happiness of millions of loyal subjects turned on their knowledge and skill. While they were in charge of the operation, the attention of not only Great Britain but of the whole world was centered on them. And from all accounts they bore themselves throughout the whole matter with dignity and confidence. It will be a very high honor to all of the practitioners associated on the case if their efforts are finally crowned with success.

The king is reported to be a model patient; he is said to observe scrupulously every injunction laid upon him by his physicians; of course, he has the most careful nursing obtainable and his surgical attendants are men of recognized reputation. His chances for recovery appear bright at the present time, and we sincerely hope that the case will have an ending favorable to the royal patient.

ALCOHOL AND THE PHYSICIAN.

Long before Father Noah bruised the grace, the race of human beings knew alcohol in some form or another as a beverage, and liked it for the effects it produced on their systems. Ancient religious rites found the use of alcohol one of the strongest factors in securing men for the priesthood and the holy drunkenness of the Persian priests is not the only illustration of the uses to which alcohol were put in religion. And it was then what it is to-day—a curse when abused. Nowadays men and women are trying, through the medium of religion and law, to stop the use of alcohol, though it must be said that their efforts appear to be meeting with scant success. It is now for the scientist—the physician—to show men that they must not drink alcohol because it is a poison. If every physician took occasion to familiarize all his patients with the effects of alcohol on the system, the time would eventually come when it would be difficult for the manufacturer of alcoholic beverages to live.

Alcohol is a poison and is recognized as such by the profession. Yet there are many practitioners who prescribe its use—in small quantities. But the French say, "Qui a bu, boira," and that is just as true of the American as it is of the Gaul, and the small amount of alcohol, taken on the advice of a physician, may form a habit which will hardly be shaken off. If a doctor can make a man understand

that he is actually killing himself, he can stop his drinking. And he ought to be able to make him understand that much.

SUBSTITUTION IN MEDICINE.

Dishonesty infects every walk of life and every stratum of society. If it is not the kind of easily recognized dishonesty that consists in a faulty discernment between *meum* and *teum*, it is a lack of square perception of right and wrong in business and in professional dealings. To a certain extent, the patient and the physician are alike in the hands of the pharmacist. The life of the one and the reputation of the other may be jeopardized, if not actually lost, through carelessness on the part of the dispenser. And when the difficulty lies not in ignorance or carelessness, but in crass substitution of one ingredient for another, because it is cheaper or more profitable, then the pharmacist becomes doubly dishonest. His dishonesty strikes the man from whom he is receiving patronage and the individual whose life and future hang on the skill of the physician.

We have laws abundant on the subject of pure food and pure beverages. Every article of food must be up to a certain standard, milk is tested by a specially trained force of men and malt and spirituous liquors are required to be of a certain quality before they can be legally vended. The druggist who substitutes one thing for another is not so often caught as are the dispensers of improperly prepared food and drink; yet his act is much more specifically bad. How much may depend on the quality of a prescription is something that nobody can know until he has been placed in a position from which he can see plainly. A human life may turn on the proper selection and combination of the component parts of a physician's prescription; and the reputation of a physician

stands side by side with them in the same jeopardy.

Like many other abuses with the ill effects of which we are familiar, the remedy is somewhat difficult of application. When we are sure that substitution has been practiced, it is without doubt our duty as citizens to see that the guilty party is punished. Most states have laws providing for the punishment of the guilty when they are detected; the hard thing to do is to secure the proper evidence. For some reason or another, the average physician is extremely loath to have much to do with a court of law; lawyers and physicians seem to mix badly as professional relations and the chances are that when a physician finds that he and his patient are being defrauded he contents himself with going to another pharmacy.

It has been suggested that every physician could become his own dispensing agent. But this requires endless time and trouble, besides an outlay in money that most physicians are not prepared to make. Committees from the medical societies are suggested as another possible solution; but the trouble is to get committees to act together and to act promptly. Of course if a physician sends his prescriptions to be filled by a reliable druggist, he is reasonably sure of having just what he prescribed dispensed; and if every physician went to a thoroughly reliable druggist, there would be no cause for the really universal complaint against substitution that is now being raised. Like every other problem that confronts the profession, the solution to this one lies in the neighborhood of concerted action. But the practitioner who has patients enough to find cause for complaint in improperly filled prescriptions is, as a rule, too busy to take the time for investigation and proving of charges.

If every physician took the time and

pains to discover exactly what it was that he wanted and then stood steadfastly for that thing and no other, a long step in the advance against substitution would have been made. And until the profession at large takes such concerted action, there is little to hope for in the way of improvement.

DR. LUCY LONG, OF BOSTON.

Almost every editor of a medical journal expressly states that he does not necessarily endorse the opinions of the writers whose contributions appear in the pages of his magazine. We do, ourselves; and one of the most obvious reasons for such a rule is found in the July issue of the Alkaloidal Clinic, which contains an article from the pen of Lucy Long, M. D., of Boston. Dr. Long is in print with a protest against the general practice of the marital act as it is now carried on among all the peoples of the world.

Dr. Long is an economist, a rigid economist. She declares that the wastefulness of the act should not be permitted to endure. She says: "Women form one ovule each month, while men with characteristic extravagance discharge millions of spermatozoa at each embrace. Now this is all wrong. Why expend millions when one suffices? No wonder men are poor until they marry. Why not select one man in each community, the most perfect specimen obtainable, educate him for the express purpose, letting the whole energies of the community be concentrated on the effort of rendering him perfect and when at his greatest perfection of vigor withdraw from him by mechanical means a store of semen. This could be preserved and so attenuated as to allow a single spermatozoon for each woman who desired maternity. A single emission would supply a cunty for a ceneury, and yet leave a surplus

to send to other localities where accident might destroy their own stock. As this would render the genital functions of all the other males superfluous, they should be castrated at birth, and also the one chosen male as soon as he has furnished the needed supply. * * * * The castration of all the males would offer so many advantages to the community that it has only to be mentioned to be appreciated. No more sexual crimes, no sexual disease, no wasting of energies in the pursuit of vain and profitless objects; no more fighting, jealousy or debauchery—really, is not this the true millennium that we see before us? * * * * I would be glad indeed to have this plan discussed * * * * For my plan would entirely do away with the vile, disgusting practice of sexual intercourse, since the semen would be withdrawn from the male and supplied to the female by mechanical means exclusively." And so on.

Well, all this certainly has the not very great merit of being original. Somewhat startling, though, isn't it? Here for aeons and aeons, people have been going through with a vile, disgusting practice, one of the results of which is Dr. Lucy Long. Perhaps there is something in what she says, after all. She herself speaks of the sexual act, which some of us have been low enough and foolish enough to fondly conceive of as being something sacred, as a pursuit of vain and profitless objects. Perhaps she is one of the objects in question. Her utterances give an impression that she is.

For ourselves, we have indulged in a little mental speculation as to what the conditions would be if the plan of Dr. Lucy Long should be carried out. We can imagine a sort of community cold storage plant, where the semen of the fortunate and perfect male selected (by

women?), shall be kept and dealt out to all women who desire maternity. There might be an arrangement for office hours at the place of storage. Say Tuesday and Fridays, from 2 to 4, Sundays and evenings by appointment. And in a vision we see the people of this millennial community, gamboling peacefully about on the greensward, occasionally taking a few moments off to castrate some helpless male child. The question of preservation of the seed would be an interesting one. We have known of a Detroit physician who was able to keep spermatozoa alive for forty-eight hours on ice; but Dr. Lucy Long's plan apparently calls for its preservation for a much longer period. When the only man in each county is finally castrated and joins the ranks of the pure in heart, what is going to be the logical outcome of the plan? We have read somewhere that organs atrophy by generations of disuse. Isn't it in the range of possibilities that there will come a time when the results of the vile, disgusting practice of sexual intercourse cannot be attained by Dr. Lucy Long's chaste method? And how about the women? Perhaps even Dr. Lucy Long will admit that some women not only do not regard the sexual act as vile and disgusting, but are sufficiently abandoned to even enjoy it. Isn't it possible that their desires will atrophy also, to the end that the entire human race will be blotted off the earth?

The doctor's protest against the prodigality of man in the matter of the overplus of spermatozoa is a protest against nature, a force that has been in existence for quite a time now. Nature with prodigality produces more fish-eggs every season than there is any possibility of a necessity for. The progeny of a single pair of shad would in two years, it is estimated, fill the Atlantic ocean from brim to brim. What a wanton waste!

Dr. Lucy Long really ought to turn her attention to stopping this oversupply; it needs attention. Let her turn to the consideration of the productiveness of the cold-blooded and shameless shad and figure out some way in which to put a stop to the male furnishing the material for the impregnation of so many eggs. And above all, let her keep her mind off the matter of putting a stop to the natural method of reproduction. It has been going on a long time now and people in general have grown to at least a toleration of it.

EDITORIAL NOTES

Numerous experiments are now being conducted in different portions of the world with a view to securing a new kind of virus or to determine the results of vaccination of the lower animals. Dr. S. Moncton Copeman, an English local inspector, so an exchange tells us, is busy with a series of inoculations of monkeys with small-pox virus, his purpose being to secure a vaccine that shall be more suitable for the vaccination of human beings. It is noteworthy that one of the foremost experimenters on monkeys, Prof. Garner, produced only unsatisfactory results as the fruit of long and elaborate experiments. And the English inspector is not likely to supplant Jenner as a household name in medicine. Our exchange suggests that there may be some difficulty in securing a name for the new product, supposing the genial Copeman to be able to isolate and secure it. "Simine" seems to be the logical one. And there are some few people at least who would be totally susceptible to all inoculation from a vaccine that had a simian source. Von Behring's experi-

ments with vaccination on cows and other domestic animals may be only the forerunner of a more general vaccination that is to be. We may complacently look forward to a time when all the lower animals with which man lives in close communion will be vaccinated and with so many different kinds of virus that they will be practically incapable of transmitting disease as they now do. Truly we live in a scientific age.

Physicians at Harper Hospital have formed an organization that is said to be unique. The name of it is the Bull Durham Club, and a large membership has already been secured among the present and former physicians and attaches of the hospital. A room will be secured in the hospital and fitted up as a satisfactory place for a physician or his friend to sit down and woo the goddess for a while. It is hoped that later on the room may assume the garb and the functions of a club room, with reading matter and possibly a pool table. At the first election, which is said to have been surprisingly free from acrimony, the following officers were chosen: President, Dr. P. E. Moody; Vice-Presidents, Drs. H. O. Walker, Don M. Campbell, W. F. Metcalf and W. F. Acker; Secretary, Dr. E. M. McCoy; Treasurer, Dr. E. C. Rumer; Orator, Dr. Angus McLean; Tobacco Tester, Dr. Theo. L. Chapman; Buyer, Dr. E. M. McCoy; Chief Pipe Filler, Dr. J. V. Yale; Chief Cigarette Roller, Mr. John Dodds; Chief Torch Bearer, Dr. T. A. Booth; Chief Pipe-Story-Teller, Mr. Horace Avery; Auditor, Mr. F. E. Moulder; Press Agent, Mr. Frank E. Berthiaume; Official Tobacconist, Mr. F. E. Hibbler.

Members of the American Roentgen Ray Society will hold their next meeting in Chicago on December 10 and 11, and

a feature of the gathering will be the exhibition of some of the latest and most approved apparatus for making use of electricity for therapeutic purposes. The programme, which is said to be an excellent one, will be announced at a later date. Some well known physicians and surgeons of Chicago are on the local committee of preparations, as follows: Dr. Ralph R. Campbell, 414 Marquette Bldg.; Dr. John B. Murphy, Reliance Bldg.; Dr. Louis E. Schmidt, 424 N. State St.; Dr. M. L. Harris, 100 State St.; Dr. W. L. Baum, 103 State St.; Dr. H. G. Anthony, 465 Dearborn Ave.; Dr. W. A. Pusey, Columbus Memorial Bldg. Weston A. Price, D. D. S., is chairman of the executive committee, with offices in Cleveland.

The regular meeting of the Central Michigan Medical Society was held at the city hall in Lansing on July 10 at 2 p. m. The following programme was presented: Call to order and roll call; Business meeting; Paper—"Acute Intestinal Diseases," by Matthew Coad, M. D., Williamston; Discussion—led by A. D. Hagadorn, M. D., Lansing, and Gertrude D. Campbell, M. D., Mason; Clinic, in charge of committee, R. J. Shank, M. D., and H. A. Haze, M. D.; Reports of cases by members.

The officers of the society are: President, S. H. Culver, M. D., Mason; Vice-president, H. A. Haze, M. D., Lansing; Secretary and Treasurer, L. Anna Ballard, M. D., Lansing.

The highest court of the state on June 24 last, reversed the decision of the Wayne Circuit court in the case of the People vs. Dr. Ernest L. Shurly. Dr. Shurly, it will be remembered, was found guilty by a jury of having failed to report cases of consumption; the bench took the matter from the jury by setting

aside its verdict and entered a judgement for the defendant, Dr. Shurly. It is held by the superior court that this action resulted in a mistrial and that the ends of justice will best be served by a rehearing of the entire matter. Those who heard the trial in Detroit will remember the keen interest which attached to the hearing, and the trial which is to be made should not be lacking in interest.

In the June JOURNAL appeared very little matter that was not original and exclusive, but in the small portion of reprint two mistakes were made. On page 463 appeared a short excerpt headed "A Cry Against Immoral Advertising," which was credited to the *Medical News*, and on page 471 a longer one, headed "Practicing Medicine by Telephone." This was credited to the *Medical Review of Reviews*, but with the one first mentioned should have been given to the *Philadelphia Medical Journal*. This explanation is made with the double purpose of expressing regret for an error and of placing the credit where it properly belongs.

Vaccinated in a Cold Locality.—He was sitting by her side at dinner, proudly congratulating himself upon being where he could look down upon the beautiful neck and arms. "I am being tortured," she said, as she moved uneasily. "I have been vaccinated, and it is just 'taking.'" "Why," he said unguardedly, as he cast another glance at that handsome neck and those lovely arms, "where were you vaccinated?" "In Boston," she replied, as a smile drove away the evidences of pain.—(*Peoria Medical Journal*.)

Salicylic Acid in Strawberries.—Portes and Desmoulières have succeeded in isolating crystallized salicylic acid from strawberries. The *Gaz. Med. Belge* mentions this curious fact, and observes that it is important in the study of adulterating substances in preserves, syrups, etc., containing strawberries.

NEW INSTRUMENTS & DEVICES

Mention of new instruments and devices in this department is entirely complimentary and articles illustrated are judged on their merits.

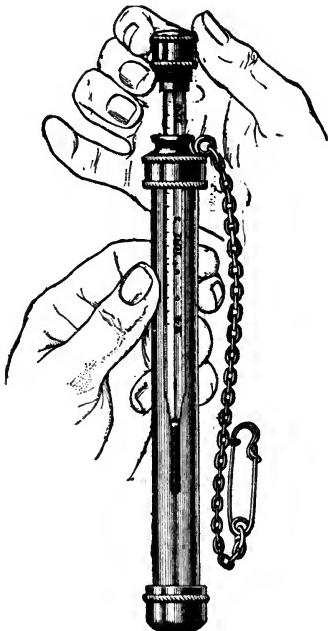
We invite manufacturers and physicians to send us matter suitable for publication under this head. A description of the device and an electrotype or half-tone with a base not greater than two and five-eighths inches should be sent.

Always mention the price of the article in question.

The management cannot undertake to return cuts unless postage for same accompanies the letter with which they are sent.

ASEPTIC THERMOMETER CASE.

This device commends itself especially to the busy physician who is constantly

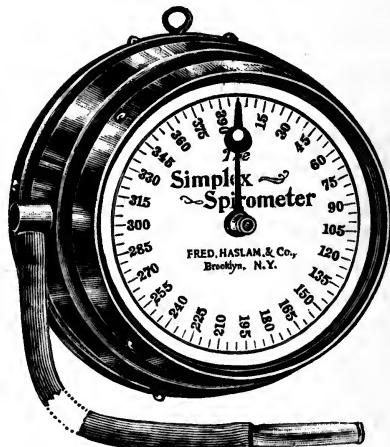


going his rounds from case to case, finding frequent use for his clinical thermometer. The question of securing asepsis in the thermometer is one which every doctor likes to settle to his own satisfac-

tion, and this arrangement aids him in the solution of the difficulty. An anti-septic solution, say corrosive sublimate 1 to 500 is placed in the heavy annealed glass tube, a rubber diaphragm which rests on the mouth of the tube forming a water-tight closure and preventing the liquid from spilling out even when it is turned upside down. The thermometer is thrust through the diaphragm and the screw cap turned in the ordinary manner. A safety chain for securing the thermometer case to the waistcoat of the physician completes a handy device. The glass tube is sufficiently heavy to guard it against breakage and leakage is absolutely prevented. The cut gives an excellent idea of the device, which retails for \$1.25 complete.

SIMPLEX SPIROMETER.

Almost everybody likes to test the capacity of his lungs, as the popularity of the common "lung-tester" amply testi-



fies. The diagnostic value of such a device is, of course, somewhat problematical, but physicians will find the article herewith illustrated a convenient one and one that will prove a useful addition to their office. The spirometer is $5\frac{3}{4}$ inches in diameter and is fully nickel plated. It retails for \$6.00 and is worth the money.

GALLOWAY OBSTETRICAL OUTFIT.

This new aid to the obstetrician is called the Galloway obstetrical equipment and it is designed to secure comfort for the parturient patient and convenience for the accoucheur. It consists of a hot

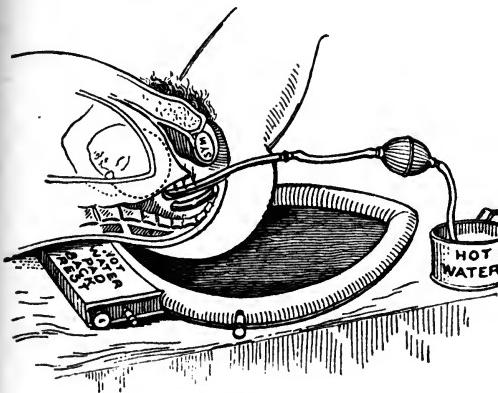


Fig. 1.

water pad and pan, serving to apply heat to the sacral region and to the back, in the manner illustrated by Fig. 1. The pad is prepared for use by having about a pint of hot water poured into it, afterwards being blown full of air. When it

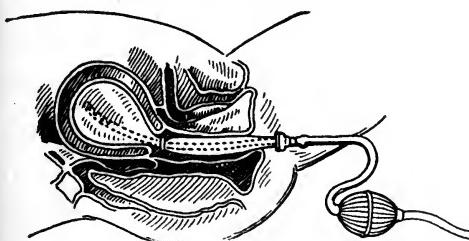


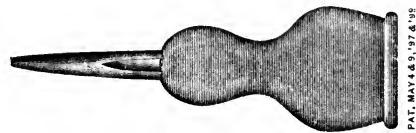
Fig. 3.

has been placed under the patient's back, it is adjusted by means of an air-valve so as to conform exactly to the shape of the back, forming a comfortable support. The combined efforts of the heat and the support will greatly ease the back pains in the first stage of labor.

NON-COLLAPSIBLE NIPPLE.

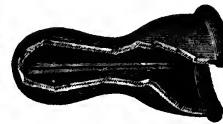
For babies who are being brought up on artificial food the matter of finding a suitable nipple for the nursing-bottle is

sometimes a rather difficult one. Many of the nipples offered for sale have an unpleasant habit of collapsing when they are in use, preventing the infant from securing any food. Various means have been devised for preventing this, several of the nipples in use depending on a valve to keep them properly filled with air. The manufacturers of the nipple



herewith illustrated claim that their device is superior to all others now on the market. Its support consists of a stem of rubber which runs from the top of the nipple into the hollow cup. A slot in the side of the stem permits the passage of the liquid food through the ordinary hole in the top. The presence of an absolute physical obstruction makes the support positive, and the stem in no way interferes with the use of the nipple itself and it has the additional advantage of giving

STANDARD.



Pat. May 4, 1897.
Pat. May 5, 1899.

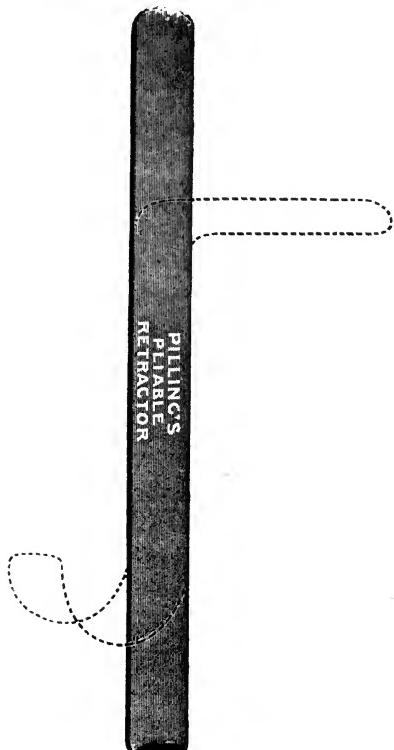
the infant something to chew on while dentition is in progress.

The nipples themselves are of a correct size for insuring the baby's comfort and are manufactured of fine para rubber. They are smooth and tough and will last a long time. The price of them to the profession and the laity is 50 cents a dozen.

PLIABLE COPPER RETRACTORS.

These retractors, the numerous uses of which commend them to the attention of the profession, are simple in the extreme.

They are made of copper of sufficient fineness to admit of their being bent into any peculiar shape demanded by the use to which they are to be put and can readi-



ly be straightened again without using undue pressure. A triple silver plating insures a handsome appearance and durability of finish and their very construction renders it an easy matter to secure entire asepsis in them. They are made in four sizes, ranging in width as follows: 1 inch, $1\frac{1}{4}$ inch, $1\frac{1}{2}$ inch and 2 inch. There is no doubt that they can be made useful in many ways to the surgeon and the assortment of sizes gives a man what he wants. Their cheapness is another point in their favor, as they retail for \$4.50 a dozen net.

Please Read This.—If your subscription has expired, send us one dollar. If you don't want the JOURNAL, stop it.

THERAPEUTIC BREVITIES

Complication Following Removal of Adenoids.—Dr. A. Montenyohl, of Akron, Ohio, writing in *Pediatrics*, reports the following case: Recently I have noticed the reports of various complications following the surgical removal of tonsils and adenoids, and I wish to mention a very unique case which caused me not a little post-operative anxiety. A female child, aged 5 years, suffering from a very aggravated form of enlarged tonsils and adenoids, was operated upon in the usual manner under chloroform narcosis. Nothing unusual was noted about the case until three days following the operation, when characteristic choreic movements were noted to develop in the muscles of the face and rapidly extended to the extremities. The child was extremely nervous and peevish and would cry out at the least excitement and was unable to sleep without hypnotics.

An acute endocarditis ensued and rapidly took on grave manifestations with the fever at 105° F., and respiration 50 for several days. Gradually the symptoms subsided, leaving a chronic heart condition, with the chorea not much benefited. About two months after the acute manifestations the choreic movements disappeared and the child seemed to suffer little except that when she played too hard she would complain of fatigue.

Chorea and acute endocarditis following the removal of adenoids and enlarged tonsils is indeed very interesting and unique from an etiological standpoint. As there was no history of rheumatism in the family I have thought that the complication might have arisen from some sort of infection from the seat of operation. The child did not appear to be frightened before the administration of the anesthetic.

Collateral Circulation Secured After Tearing of both Radial and Ulnar Arteries.—Dr. William J. Kress, of St. Louis, reports the following case in the last *Interstate Medical Journal*: L. B., male,

aged forty years; injured August 31, 1900, while operating a leather stamping machine. His left forearm was badly crushed, completely lacerating all the flexor muscles and tearing out their bellies, severing all tendons as well as both the radial and ulnar arteries. The entire lower third of the radius was crushed into several small pieces which it was necessary to remove. The radius was also fractured at the junction of the upper and middle thirds.

After consultation with Dr. Bernard S. Simpson, who was called to assist me, it was decided to wait for gangrene and its line of demarcation to point out the extent of tissue to be removed. The radial and ulnar arteries were ligated, and all tendons taken up and sewed into their anatomical relations. A bichloride pack, 1 to 2000 and splints were applied. The patient's temperature on the following day was 99 1-5°, gradually rising each day until it reached 101°, which point it never exceeded. The patient's general condition remained good; he was cheerful and suffered very little except when the dressings were changed each morning. Fourteen days after the injury, a well-defined line of demarcation became apparent at the index, middle and ring fingers close to the metacarpo-phalangeal articulations, and the line also showed on the little finger at the last phalanx.

All fingers were amputated in healthy tissue just above the line of demarcation. The parts healed slowly by granulation and there was very little sloughing, leaving the hand healthy as well as the thumb and little finger. The blood supply to the little finger, thumb and the rest of the metacarpus must have been supplied through the interosseous arteries, because the main trunks were both cut.

The patient has regained motion in the thumb and little figure and in the wrist. I had been advised by several prominent physicians to amputate well up on the forearm on the day of the injury, but declined to do so. The collateral circulation was completely established and a useful hand remains. This case again illustrates in a striking manner that early amputation on the hand and forearm is a practice to be avoided. I believe we cannot be too conservative in the practice of

surgery when the hand or fingers are involved. The danger of septic absorption is reduced to a minimum by the moist antiseptic dressing.

Lethal Sleep.—It is reported from Uganda that the natives are dying in considerable numbers from "sleeping sickness," a native name for a terrible disease which occurs among the inhabitants of certain districts in Africa. As its name indicates, it bears a curious resemblance to sleep, the patient growing gradually sleepier until he finally dies.

In 1898 two natives from the Congo were landed in this country suffering from the mysterious complaint and taken to the Charing Cross hospital, where they were objects of great curiosity. The doctors could not grapple with the disease and the patients eventually died. In the districts of Africa where the "sleeping sickness" occurs, the natives live in terror of it, and will abandon their villages on its approach. It is not entirely confined to the negro race, as there are one or two cases on record of Europeans having died from it.

Many reasons have been given as to its origin, but the true cause has not been definitely ascertained. Native doctors are said to cure some cases by rubbing pepper in the eyes, a treatment which, if it did nothing else, would be calculated to keep the patient awake.

Sir Harry Johnston, the eminent authority on Central Africa, believes that the disease is due to the existence of a parasite in the blood which, by choking the blood vessels, interferes with the nourishment of the brain. This is probably a right solution, as the disease is obviously connected with the brain.—(*London Mail.*)

Ninety-Three and Still Practicing.—The town of Freehold, N. J., boasts of a man who is probably the oldest practicing physician in the United States, Dr. Otis R. Freeman, now in his ninety-third year. He is still active and makes visits through the surrounding country as far as sixteen miles from his home.—(*Medical News.*)

NOTES & COMMENT

Doctors and Drug Habits.—The cause of much of the morphinism is laid at the door of the medical man and I'm sorry to say much of it justly so. The victim will in nearly every case berate the doctor who prescribed the drug, and lose sight of those who subsequently buy and dispense it without his knowledge or consent. The doctor has to bear much of the blame that ought to attach to others and I am here to defend him at the expense of the state. While physicians should exercise the greatest care in the use of narcotics, I think the prevention of their abuse is largely a matter for the state. Strict, uniform laws regulating the sale of narcotic drugs is the only way to restrict their illegitimate use.

As to the culpability of the medical man, a case has recently been decided in the English courts, in which a doctor was sued for malpractice in that he was the cause of the plaintiff's opium habit. The decision was in favor of the medical man and the main reason for the decision was that the plaintiff, being a trained nurse, ought to have been aware of her danger. This teaches us a very important lesson both in medicine and in law and it would be well for every one of us to remember it. In every case, where it is necessary to use narcotics for any length of time, or in any case in which their use is not entirely within your control or likely to give trouble, *always* give unmistakable warning and have proof of it.—(W. P. Ivey, in *Charlotte Medical Journal*.)

Moral Suasion by Electricity.—According to the *New York Times*, a collector of old and rare books recently came across a peculiar book in metal, with what seemed to be an electrical appliance at one end. The volume was a copy of the Protestant Episcopal Book of Common Prayer, translated into the language of the North American Indians of Dakota.

The covers of the book had been carefully reinforced with substantial plates of nickeled brass, firmly fastened with five strong rivets on each side. At the top of each cover was an appliance for the insertion of an electric wire.

According to the story told by the seller of the book, the work was used in its present form by a missionary to the Indians, in connection with an electric battery. While the unconverted brave, whose soul the missionary desired to save, held the prayer book with his hands on both covers, thus forming an electrical circuit, the latter would surreptitiously turn on a gentle current, which sent mild but appreciable thrills through the frame of the savage. These he believed to be manifestations of the new found religion.

We wonder how many savages were converted by this method?

Reason for Hurrying.—“Yes,” said the old doctor, “you should try to have your own carriage by all means. Because when you want to get to a patient quickly—”

“Oh!” interrupted the young M. D., “I don't think any patient who sent for me would be likely to die before I reached him.”

“No, but he might recover before you got there.”—(*Philadelphia Press*.)

Insomnia.—As a new boarder, he was given extra attention at his first breakfast, and was asked by the landlady:

“Well, how did you enjoy your rest after a change of quarters?”

“I didn't rest much,” he replied. “I was troubled all night with insomnia.”

“Sir,” was the landlady's indignant comment, “you should not say such a thing at table! I've never heard such a complaint before in twenty-two years as a housekeeper, and I'd have you know, sir, I've had your betters as my boarders! And,” she went on, as he flusteringly began to mumble an explanation, “I do not believe you, sir and am willing to board you free if you find a single one on that bed!”—(*Philadelphia Times*.)

BOOK REVIEWS

A Text-Book of Obstetrics. By Barton Cooke Hirst, M. D., Professor of Obstetrics in the University of Pennsylvania. With 653 Illustrations. Second Edition. Pages, 820. Size, 5½ x 9 inches. Price, Cloth, \$5.00. W. B. Saunders & Company, Publishers, Philadelphia and London.

This book, which by the way is dedicated to Dr. Hirst's old preceptor, Dr. R. A. F. Penrose, embodies the chief points necessary to a good working knowledge of the art of the obstetrician. Its purpose being primarily the instruction of students and young practitioners, its language is simple and clear and considerable detail is gone into with a view to making everything plain. Wherever it is possible, the author has made such condensations as he was able to without impairing the detail of the text.

The subject matter is logically and conveniently arranged. Beginning with the anatomy of the pelvis and of the female sexual organs, the author goes on to describe pregnancy, normal and with its numerous complications; the physiology and management of labor and of the puerperium; the mechanism and the pathology of labor; the pathology of the puerperium and numerous obstetric operations, concluding the work with a consideration of the physiology and the pathology of the new-born. Each part of the text is embellished with illustrations, many of them taken from life and all well executed. Two colored plates are published with the book.

Keeping constantly in mind the idea that his work is to be read and used by young practitioners and undergraduates,

the author carefully defines the meaning of the technical expressions used in a consideration of the subject. Having thus prepared the student for a proper understanding of what he is about to say, Dr. Hirst goes on to the consideration of the important and practical matter of management of a woman in labor. And here the value of Hirst's experience comes plainly to view. The text is full of suggestions of a practical nature, by heeding which the young obstetrician may safely avoid many errors in diagnosis and treatment. Step by step the progress of a normal labor is traced, attention being called from time to time to the incidents that may arise for treatment, with suggestions as to just what is best to be done. This portion of the book is the most fully written and it is the one which will probably be found of the greatest practical value to the student. Every detail, from the preparation of the patient and her surroundings, down to the period when the mother fully recovers from the period attending child-birth, is set down. For practical suggestions and plainness of directions, this book in this part is certainly of the greatest value.

Hirst is a strong advocate of the use of anæsthetics, when properly administered. He points out the advantages to be gained from this procedure and apparently feels that the disadvantages sometimes present are more than counterbalanced by the relief of the patient's pain. He also believes firmly in late ligature of the cord.

Having traced the progress of child-birth, the author goes on to a consideration of the treatment of both mother and child after the latter has entered the world. Up to this point, the consideration has been chiefly of a normal labor, but now he goes into a discussion of abnormalities, such as are unfortunately

sometimes encountered. For a treatment of this topic his experience has thoroughly prepared him. Thus he goes through the whole matter of obstetrics, from conception to recovery, noting constantly the circumstances which may arise in all conditions. He is a practical man and his book reflects his practicality.

The American Illustrated Medical Dictionary. A New and Complete Dictionary of the Terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, and the Kindred Branches, with their Pronunciation, Derivation and Definition. By W. A. Newman Dorland, A. M., M. D., Assistant Obstetrician to the University of Pennsylvania Hospital; Editor of the American Pocket Medical Dictionary; Fellow of American Academy of Medicine. With New and Elaborate Tables of Arteries, Muscles, Nerves, Etc. Numerous Illustrations and 24 Colored Plates. Pages, 770; Size, 6 x 9 inches. Bound in limp leather. Price, Plain, \$4.50 net; with Index, \$5.00 net. W. B. Saunders & Co., Publishers, Philadelphia and London.

Here is a dictionary that we like immensely. Although it has been published for nearly two years it contains practically all the information that the modern practitioner has a right to expect in a dictionary, while its price is remarkably reasonable. Dr. Dorland's previous experience in dictionary editing has proved of value to him in the matter of showing him how to condense where it is to the best interests of the book, without being unduly brief in the matter of definition. The Latin, Greek and French languages, from which so many of our modern words in medicine are taken, are clearly shown in etymology, while the sturdy German language lends its aid also to furnishing us with medical terms.

Where the word to be defined is the name of a drug or medicament, the derivation is given, then the definition, properties of the drug, uses and dosage. So in Lobelia, "from M. de Lobel, acronarcotic, emetic, sedative, expectorant and depressant." Then follows the dosage in the various uses to which it is put. Odd and unusual words are also taken up, as "Lomi-Lomi, a shampooing process practiced in Polynesia."

But it is not alone with the derivation and definition of words that the dictionary deals. Much that is encyclopædic in character is also given. Space has been economized by placing all compounds of words and combinations of the same word in one division of the dictionary, in a manner similar to that practiced in the dictionaries of modern languages. For example, under the one word "Area" definitions of thirty-eight different areas are given, with a word of explanation on each that is sufficient for a clear understanding of what is meant.

Not an inconsiderable factor in the value of the book as a whole is the insertion of a large number of useful tables. Most of these are illustrated and the illustrations, both in line and in colors, are well designed and well executed into the bargain. Under the single head of stains and staining methods, eight pages or more of fine type are devoted to an explanation of the different means by which specimens are properly prepared for microscopical examination. A table of the muscles, with well-drawn representations of the more important muscles, is of interest and the same statement applies to the tables of the nerves, arteries and so on which find a place in the book.

Chemistry and pharmacy are well represented in the definitions and information of value to the practitioner who may have become just the least bit rusty on some points is contained in that portion

of the text devoted to these two subjects. There is no waste of words in definitions but on the other hand there are enough words put into defining a word to convey some clear idea of what it means.

Diseases of Women: A Manual of Gynaecology Designed Especially for the Use of Students and General Practitioners. By F. H. Davenport, A. B., M. D., Assistant Professor in Gynaecology, Harvard Medical School. Fourth Edition, Revised and Enlarged. With 154 Illustrations. Pages, 402. Size, 8 x 5 inches. Price, Cloth, \$1.75 net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1902.

This book is called a manual, though its size and the general detail of its contents really entitle it to a more pretentious name. Davenport's work as a writer on the diseases of women has already given him a high standing in the medical profession and his previous editions of the same book were exhausted with a promptness that must have been gratifying to him and to the publishers. The text contains practically only the results of treatment that the author has followed out with success in his own clinics and his own treatment of patients.

The author steers a judicious and well-considered course between a tendency to write too detailed a text for the man of practice and a desire to write down only those things which are needed by the practitioner. The result is a book that may justly be considered as of use to the beginner and the advanced physician alike. Diagnosis and treatment, with a brief consideration of the small, but sometimes vital, points in each, are treated at length. In the course of long experience a man frequently becomes cognizant of many small signs which are invisible to the unexperienced, but which at the same time are of the greatest diag-

nostic value to the man who is well trained enough to observe them; and of these small points Davenport has let fall some very useful hints.

As the author very justly remarks, it is to the family physician that the woman who is ill with the maladies peculiar to her own sex most naturally turns. With a confidence born of years of intimate and familiar relation, she seeks his advice, to the exclusion of the stranger who may be better fitted to treat her. In this condition of affairs, it becomes imperative that the family physician should have a clear understanding of the general nature of the diseases of women, that he may make a careful diagnosis. Then, with this established, he may properly treat the patient himself or turn her over to a specialist in gynaecology who is able to relieve her suffering.

The matter of operative assistance in diseases of women is a carefully written part of the book and the text is considerably elucidated by illustrations, showing every step of the operation, with the instruments made use of in the carrying out of it. Operative technique receives the attention that is its due and there are useful suggestions all along the line. Davenport has done some admirable work in condensing the text, while at the same time he has left out nothing that is vital to the subject. In fact, he brings in almost everything that is in any degree germane to it. Viewed in the light of the book itself and the experience of former editions, we feel that this work will meet with a steady demand from the profession.

A Manual of Otology. By Gorham Bacon, A. M., M. D., Professor of Otology in Cornell University Medical College, New York. With Introductory Chapter by Clarence J. Blake, M. D., Professor of Otology in Harvard Med-

ical School, Boston. New (3rd) Edition. In one Handsome 12mo. Volume of 43 Pages, with 120 Engravings and Seven Plates in Colors and Monochrome. Cloth, \$2.25 net. Lea Brothers & Co., Publishers, Philadelphia and New York.

In the space of four years this manual of otology has reached its third edition, a fact which should be sufficiently demonstrative of its popularity and standing with the profession. Dr. Bacon has of course continued his researches and studies along the line of his chosen specialty and although he modestly states that his book aims to treat only of those diseases which are met by the student or practitioner, it may be honestly stated that he has included between its covers much information that should be of interest to specialists in diseases of the ear.

The text of the present edition is an enlargement of that of the edition of 1898, and a number of new illustrations, chiefly reproductions from photographs of cases, and specimens of pathological conditions, have been added. Among the new topics taken up in the book's present form are those of lumbar puncture and the significance of leucocytosis. Dr. Clarence John Blake, of Boston, writes an introductory chapter on the importance of special study in otology and Dr. George Sloan Dixon, Dr. Bacon's assistant, has collaborated with his chief in the production of the book.

Like Bacon's magazine articles, the text is satisfactory in that it is practical and that he wastes few words in saying what he has to bring to our attention. He has the directness of speech which comes readily to the collegiate faculty man, who has only a limited time to address his classes and who is therefore obliged to make every word count. What he has to say on the subject of special treatment is valuable and he goes into

sufficient detail to make the matter clear. He is a strong advocate of early treatment in affections of the hearing apparatus and he rather deplores the fact that so many patients will suffer themselves to fall into an advanced state of deafness before they consult a physician.

The subject matter is well arranged, set down with a view to the convenience of the reader. The author begins with the anatomy and physiology of the ear, passes on to a brief but sufficiently detailed description of the methods of examination, and then takes up the matter of the ear's diseases. The latter are well illustrated with reproductions from photographs of cases and the instruments chiefly used are also shown. Seven plates in colors add to the interest of the illustrations, and the whole book is well published. One or two little slips in proof-reading do not detract from the value of the book to the profession. For example, on page 145, he says: "A sharp-pointed instrument is apt to cause somewhat a round wound," but the meaning is obvious enough. Again, Fig. 115, facing page 377, is signed "Cerebra veinsl and sinuses," which is of course a printer's error. On the whole the work is pleasantly free from typographical imperfections.

Compend of Special Pathology. By Alfred Edward Thayer, M. D., Assistant Instructor in Gross Pathology, Cornell Medical College; Pathologist to the City Hospital. Formerly Fellow in Pathology, Johns Hopkins University; Instructor in Anatomy, Yale Medical College; and Professor of Pathology and Bacteriology, West Virginia University. Containing 34 Illustrations. Pages, 314. Size, 7 x 4 $\frac{3}{4}$ inches. Price, Cloth, 80 cents net. Philadelphia, P. Blakiston's Son & Co., Publishers, 1012 Walnut St., 1902.

This little book is part II of the Compend of Pathology, of which part I was reviewed in the May JOURNAL. Like the other books in the Blakiston series, this one contains much meat. The subject matter should be of interest especially to the student, for whom the series is primarily designed, the object of the book being to place him thoroughly *en rapport* with the several divisions of medicine and surgery in which he is most likely to be questioned in any standard examination. The books may be, and as a matter of fact commonly are, used in connection with other standard textbooks. Ewing's Clinical Pathology of the Blood is made use of in the portion of the work that deals with the pathological conditions affecting the blood and Dr. J. C. Johnson, Dr. Thayer's colleague on the faculty at Ithaca, has written the chapter on the Pathology of the Skin, which is a valuable and an interesting one. The book is brand-new, having been finished for the press only last month, and may therefore be fairly said to be immediately down to date.

There are ten chapters, dealing with the pathological conditions met with in the circulatory system, the respiratory system, the ductless glands, the alimentary canal, the alimentary glands, the urinary system, the reproductive system, the locomotory system and the cutaneous system, the final chapter treating of deaths by violence and poison. An appendix of the synopsis of infectious diseases forms a valuable adjunct to the book itself.

The illustrations, which naturally present only pathologic conditions, are of interest. Some of them are from photographs and the results of a number of microscopical examinations are also shown. Students will find both text and illustrations of much help and the practitioner need not scorn much of the in-

formation that is to be found on the pages of this book.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Laureate of the Royal Academy of Medicine in Belgium, of the Medical Society of London, Etc., Etc.; Assisted by H. R. M. Landis, M. D., Assistant Physician to the Out-Patient Department of the Jefferson College Hospital. Volume II. June, 1902. Surgery of the Abdomen, Including Hernia—Gynæcology—Diseases of the Blood and Ductless Glands. The Hæmorrhagic Diseases. Metabolic Diseases—Ophthalmology. Pages, 432. Size, 5 $\frac{3}{4}$ x 9 $\frac{3}{4}$ inches. Lea Brothers & Co., Publishers, Philadelphia and New York.

This work is the second volume of the series, the first of which was reviewed in the DETROIT MEDICAL JOURNAL for February, 1902. The contributors to this volume are John G. Clark, M. D., William B. Coley, M. D., Edward Jackson, M. D., and Alfred Stengel, M. D., all men of prominence in their profession and all connected with well known institutions in the east. Their work is authoritative and concise and has been carefully edited to make it conform to the limits of the book, which aims to present only the noteworthy advances made along the lines of medical and surgical practice.

Dr. Coley's article on surgery of the abdomen, including the various forms of hernia and their treatment, is a scholarly and well considered work and Dr. Clark's treatment of gynecology, his own specialty at the University of Philadelphia,

is along the same broad and interesting lines as those followed in his own lectures. Dr. Alfred Stengel is given the section on diseases of the blood and the ductless glands, in which work he is perfectly at home, and Dr. Edward Jackson, emeritus professor of ophthalmology in the Philadelphia polyclinic, is the writer of a section on ophthalmology. The contributors have been chosen and the result has been the production of a book that is thoroughly modern and valuable. We shall wait with interest for the appearance of subsequent numbers of the series which has been happily inaugurated.

Sociologic Studies of a Medico-Legal Nature. By Louis J. Rosenberg, LL. B., Associate of the Victorian Institute, London, Eng.; Member Historical Society of Lanc. and Ches., Liverpool, Eng.; Michigan Delegate to the American Congress of Tuberculosis (1901); Member Medico-Legal Society, New York, Etc., and N. E. Aronstam, M. D., Ph. G., Assistant in Chemistry and Dermatology, Michigan College of Medicine and Surgery, Detroit; Member Wayne County Medical Society, Detroit Medical Medical Society, Etc. With introduction by Hon. Clark Bell, LL. D., President of the Medico-Legal Society. Pages, 137. Size, $7\frac{1}{2} \times 5$ inches. Price, Cloth, \$1.00. G. P. Englehard & Co., Publishers, Chicago, 1902.

Two Detroit authors are represented in this small manual, the contents of which are made up of essays formerly published in several medical journals and read before the medico-legal society. The collection is dedicated to Tolstoy and there is a reproduction of a letter of thanks and expressed co-operation from the latter's daughter, Tatiana Soohoteen, written at her father's request.

The style of the volume as a whole

appears to be somewhat loose, though this may of course be due to the different periods at which the component parts were written. The nine chapters deal with crime, the drink evil, euthanasia, stirpiculture, the education of feeble-minded children, premature burial, amnesia, a contribution to the study of suicide and tuberculosis. The authors regard two things as being most likely to produce a good effect in lessening the prevalence of crime—the control of matrimonial affairs and the establishment of distinct institutions for social, ethical and physical culture. It is unfortunate that some of the methods advocated in the book have already been tried, without any very great depreciation in the number of crimes annually committed. An instance of looseness of style is found on page 81, where the text reads, "We plead for the enforcement of the following measures: (1) Regulation of marriage. (2) Supervision of Prevention of Libertinism. (3) Moral Culture." In (2) the meaning is somewhat obscure. No community could well "supervise" libertinism and thus far at least this country has met with little success in "preventing" it.

There is some careless proof-reading on page 59, where an extra line has been put in the ninth from the top of the page. The book is well bound, printed on good paper, with clear type and wide margins, so that an error of this kind is only the more glaring. Although there is much that is good in the book, there is little that is really new or in advance of the writings of Lombroso and others along the line of reform.

A Practical Treatise on Small-Pox. Illustrated by Colored Photographs from Life. By George Henry Fox, A. M., M. D., Consulting Dermatologist to the Health Department of New York

City; with the Collaboration of S. D. Hubbard, M. D., S. Pollitzer, M. D., and J. H. Huddleston, M. D. Parts I and II. Pages 31. Size, $9\frac{1}{2} \times 12\frac{1}{4}$ inches. J. B. Lippincott Company, Publishers, Philadelphia and London, 1902.

Dr. Fox's own practical experience in the diagnosis and treatment, together with the useful knowledge of his collaborators, insures practicality for his book, and the statements made therein must be entitled to the most serious consideration. The author points out what every practitioner of experience must at some time have found—that diagnosis in the case of some forms of small-pox is practically impossible in the "pre-eruption period," while the disease is beginning its attack on the body. The responsibility of fixing the diagnosis of small-pox is undoubtedly a grave one, not only from the standpoint of the public if the case is really small-pox, but also from the standpoint of the patient, who is put unnecessarily to so much pain and anxiety, if the diagnosis proves incorrect. With a view to aid in diagnosis in general, Dr. Fox points out some of the features of symptoms of maladies which at the beginning may be mistaken for small-pox—measles, meningitis, (especially cerebro-spinal), cryptogenetic septicæmia and so on. He says: "The physician who during the prevalence of an epidemic finds an unvaccinated subject suffering from a febrile disease of acute onset, with severe lumbar and dorsal pains, may, in the absence of definite symptoms pointing to some other disease, suspect small-pox; but a positive diagnosis at this stage is, of course, impossible."

Among the general symptoms which Dr. Fox regards as characteristic are markedly rapid pulse and respiration, severe lumbar and sacral pains, "shotty"

feeling in the papules of the eruption, and the complete appearance of the eruption on the face and the extremities within a few hours.

Considerable help is given to the young and to the older practitioners who have not happened to have had much experience in treating small-pox cases by the numerous colored plates with which the work is illustrated. There are sixteen plates in all, showing the various forms of the disease, and the various stages of the eruption in each. The photographs were taken from life by Dr. Fox and his associates and possess great interest, since they are well reproduced. The feature of the successive stages being presented is one that marks the book as one of value and is noteworthy in showing the rapidity with which the characteristic lesions of the disease develop.

Besides the general hints and rules on diagnosis, Dr. Fox throws out many helpful suggestions as to the meanings of special conditions. For example he lays down the statement that the presence of small haemorrhages or petechiæ, varying from the size of a pin's head to a pea, in the brachial and crural triangles of Simon are of grave prognostic significance as they are usually the precursors of haemorrhagic small-pox. The book is practical and of value.

The International Text-Book of Surgery
by American and British Authors.
Edited by J. Collins Warren, M. D.,
LL. D., Professor of Surgery in Harvard
Medical School; Surgeon to the
Massachusetts General Hospital; and
A. Pearce Gould, M. S., F. R. C. S.,
Surgeon to Middlesex Hospital; Lecturer
on Practical Surgery and Teacher
of Operative Surgery, Middlesex Hospital
Medical School; Member of
Court of Examiners of the Royal Col-

lege of Surgeons, England. Vol. II. Regional Surgery. With 471 Illustrations in the Text and 8 Full-Page Plates in Colors. Pages, 1044. Size, 6 x 9½. Cloth, \$5.00 net, per volume. W. B. Saunders & Co., Publishers, 925 Walnut St., Philadelphia, Pa.

This is Volume II of the series, the initial volume of which was reviewed in the JOURNAL for June. It is slightly larger, but is remarkably compact, considering the really immense amount of information on detailed subjects that is contained between its covers. It goes quite fully into the cause, diagnosis, prognosis and treatment of practically all conditions of the human body requiring surgical interference for their relief, and accompanies a sufficiently detailed text with a number of enlightening illustrations. There are thirty-three chapters in this excellent text-book, each one written by a specialist in the lines on which he writes, and the subject matter may therefore be taken as being authoritative.

Two chapters on gynaecology are written by Dr. Henrotin, the Professor of the subject at the Chicago Polyclinic. A short chapter on syphilis, dealing naturally with the surgical operations most frequently met with in this affection, is by Robert W. Parker, F. R. C. S., surgeon to the East London Hospital for Children and to the German Hospital. Dr. William T. Bull, of New York, contributes a chapter on hernia that is of value and other special branches are in capable hands.

The list of contributors to this volume shows many notable names among modern surgeons and this fact, combined with the good illustrations and the low price, should give this book a place in the library of the surgeon, whether he is in general practice or a specialist. It is noteworthy that, although most of the

writers are specialists in some branch of regional surgery, they have avoided the mistake of writing as if for their brother specialists, but have on the contrary written for the profession in general. The book is an excellent one and we predict a generous demand for the series. The publisher has aided materially in giving the profession a worthy book. Some of the illustrations are from old plates, but this fault is almost universal in medical and surgical works.

The Yellowstone Park.—Tour under escort of The American Tourist Association. Special Sleeping Cars leave Chicago Tuesday, July 1st, at 10 p. m., via **The Chicago, Milwaukee & St. Paul R'y.**

Extended time in Yellowstone Park, and extra day at each hotel. Special stages and rooms already reserved.

Alaska on the new and elegant S. S. "Spokane." Choice rooms reserved.

The itinerary includes the Columbia River, Glacier, Banff, and Canadian National Park.

Tickets Include All Expenses Everywhere:

Hotels, carriages, railway and sleeping car fares, meals in dining cars, berths on boats, etc.

For circulars, maps, itineraries, etc., address C. C. Mordough, Traveling Passenger Agent, C. M. & St. P. R'y., Cincinnati, O., or F. A. Miller, General Passenger Agent, Chicago.

Malignant Forms of Small-Pox.—Malignant small-pox may be differentiated from malignant scarlet fever by the fact that haemorrhages from the conjunctiva are seen in small-pox, but not in scarlet fever. The color of the haemorrhagic lesions is deeper, more mahogany-like, than in malignant scarlet fever. Some confusion may arise because of the prodromal erythema. This occurs in small-pox only in the groins and axillæ at first. Needless to say, this is not the location of the primary erythema of scarlet fever or measles, which usually affect the face. A fall of temperature after the eruption may be looked for, but does not necessarily occur in small-pox.—(*Medical News.*)

DETROIT MEDICAL JOURNAL

|| ORIGINAL ARTICLES

STEREOSCOPIC X-RAY WORK.*

BY PRESTON M. HICKEY, M. D.,
Detroit, Mich.

The advancement which has been made in the technique of the X-ray is a striking illustration of the improvement which has resulted from the concentration on one subject of the thought and energy of a large number of scientific workers. When Prof. Roentgen made his announcement that he had discovered a new form of energy, the first experiments were made with tubes which were imperfect and with induction coils which were inefficient. Every year has shown improvements in the Crooke's tube until at the present time they are much more durable, standing much heavier amounts of current for a longer time. The problem of the regulation of the vacuum, which determines the *definition* of the shadows, has been partially solved and there are now a number of devices attached to tubes of different makes by which the vacuum can be more or less accurately regulated. The induction coils have been greatly improved and the introduction of the independent vibrator, the

electrolytic and mercury jet interrupters, the dividing of the secondary into sections (thus allowing an easy method of repair) have made the induction coil a much more perfect and durable instrument. The practical effect of these improvements in tubes and coils has been to shorten the length of the exposure and at the same time to allow the distance between the tube and the plate to be increased, thus reducing distortion. In this way the X-ray burn in radiography is practically a thing of the past. In looking over the literature of severe cases of dermatitis resulting from exposures made for diagnostic purposes, it is found that they occurred in the first two or three years of the history of the X-ray, when it was necessary to place the tube quite near to the part exposed and to prolong the exposures to periods covering a number of minutes.

One great objection has always been brought forward in dealing with the X-ray diagnostically and that is that the resulting picture was a simple shadowgraph which represented all parts as lying in the same plane. It was often impossible to tell, when studying a broken bone with the X-ray, how the fragments

were placed antero-posteriorly unless two pictures were taken at right angles one to the other. It was also impossible to tell with a single picture whether a foreign body, as a bullet, lay above or below the bone. Even with well made radiographs taken in two planes, it was often difficult to elucidate injuries of the elbow, wrist and ankle joints. As the result of these difficulties, it was suggested to apply the principles of stereoscopic vision to X-ray work to obviate, if possible, some of these objections.

Our sense of the solidity of an object and of the comparative depth of inequalities upon the surface is dependent to a great extent upon the fact that we see more of the right hand side of an object with the right eye and more of the left hand side of an object with the left eye, and that these two slightly dissimilar images received by the two eyes are fused into one image in the ordinary process of vision. In the making of stereoscopic X-ray negatives, this principle is utilized. A tube holder is so arranged that the X-ray tube can be moved any measured distance desired. In taking a stereoscopic view of the elbow, the target of the X-ray tube is placed slightly to one side of the joint and one exposure is made. By means of a suitable plate holder, the plate which has been exposed is removed without disturbing the joint and a fresh plate slid underneath. The X-ray tube is then moved in the same plane a distance of two and one-half inches (corresponding to the pupillary distance of the eyes) so that the rays from the target will impinge on the joint at a different angle—see Fig. I. A second exposure is now made, equal in time to the first exposure. In order to secure similar density in each negative, the plates are developed either in one tray for the same length of time or in separate solutions of

the same strength for the same length of time. In this way there are obtained two negatives of uniform density and of apparently similar appearance. However, as they have been taken with slightly

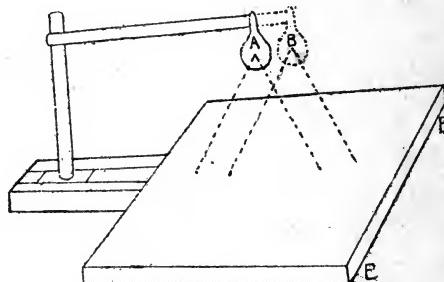


FIG. I.—A. Crooke's tube in position for first exposure; B, Crooke's tube in position for second exposure; E E, plate holder.

varying positions of the Crooke's tube, there is a slight difference. In order to produce the stereoscopic effect, it is necessary to either combine these two negatives in the stereoscope or to combine the prints made from the negatives. In all X-ray work the study of the negative is much more instructive than the study of a print made from a negative. The reason of this is that no process of photographic printing, which we have at the present time, will reproduce accurately the delicate shades and half-tones of the original negative. The best method then of studying stereoscopic negatives is one which allows of the fusing by proper mirrors of the original negatives into one image—see Fig. II. This is conveniently done by the use of a Wheatstone stereoscope, which consists of two plain mirrors (or preferably prisms) arranged at an angle of ninety degrees; the negatives are placed one at each side and properly illuminated by electric lamps softened by an intervening ground glass. Viewing the negatives in this way, there results a picture of the denser structures which is truly startling. With properly made stereoscopic negatives of the wrist, the osseous structures stand out in their true relations and we see, as it were, the joint stripped of its soft tissues.

Another advantage of using stereoscopic negatives is that the image from one negative reinforces and strengthens the other, so that independently of the stereoscopic effect the eye receives a stronger impression. This feature is valuable in radiographs of the heavier parts of the body or when the tissues are enveloped in dressings which obstruct to some extent the passage of the X-ray.

The value of stereoscopic X-ray work has thus far been only slightly appreciated. It is destined, however, to be of great practical value in the elucidation of pathologic processes of the deep tissues. In stereoscopic pictures of the tubercular chest, the extent of the lesion is at once graphically manifest; if a cavity is present it floats, as it were, at its proper depth within the bony framework. The ribs of the chest in place of showing a simple curve, as in the ordinary radiograph of the chest, assume a circular form and the picture shows a depth which in a measure corresponds to the

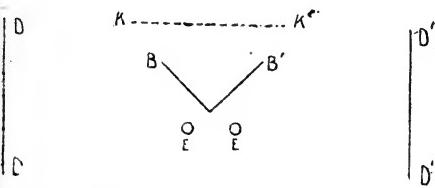


FIG. II.—EE, eyes of the observer; BB', two plane mirrors; DD and D'D', the two negatives which are combined by the mirrors to form an apparent image at KK'.

appreciation of the dimensions of solid objects by ordinary binocular vision. In fractures of a joint, the size and relation of the fragments can be made out in a way never before shown. In the study of the anatomy of the normal joints, stereoscopic radiography will undoubtedly be of great value, as the relation of the articular surfaces, the angle at which the bones are joined together and the depth at which the smaller bones are placed, are shown in a manner which

can not be approached by any method of flat illustration or dissection.

While the process of making stereoscopic negatives is perhaps a trifle complicated yet the results in selected cases are such as to fully compensate for the extra time and labor. Considerable experimental work has been done with the stereoscopic fluoroscope. This instrument is designed to produce the good effects of binocular vision when using the fluoroscope. In this way the bother and expense of photographic negatives would be obviated. The technical difficulties, however, in the production of a practical instrument have thus far not been completely solved, but enough work has been done to show that its perfection will be simply a matter of detail.

32 Adams Avenue West.

(Note.—As Dr. Hickey states, the effects secured by means of the Wheatstone stereoscope are fairly startling. And the ideal way in which to study the results of X-ray photography is undoubtedly from the negatives. But the half-tone reproductions which appear in the frontispiece of this month's issue of the Journal have been carefully made and when the illustration is cut out and placed in the frame of the ordinary stereoscope, a new effect is obtained.—Ed.)

Child Marriages and Poverty.—Mr. A. Montefiore Brice, writing for the London *Daily Mail*, says that in London there are 13,000 married persons who are twenty years of age or under. The latest report shows that in the metropolis there are ten wives aged fifteen, twenty-three wives and widows aged sixteen, 164 wives and widows of seventeen years of age, 971 aged eighteen, 2,712 aged nineteen, and 6,672 wives and widows at twenty years. The husbands are naturally fewer. Yet there are 727 husbands from sixteen to nineteen years old, and 2,022 just twenty years of age.

Mr. Brice says that the proportion of these boy and girl marriages is invariably

greatest where the social state is least advanced. "The majority of such marriages are contracted in absolute poverty. Not a sovereign—no, nor half a sovereign—has been saved. The few 'sticks'—and sticks, indeed, they are—are obtained on the hire system—one shilling down. The girl-wife can neither cook nor sew; to sweep and scrub she is averse as well as unaccustomed. Reared in some squalid, two-roomed home, she has passed in the street the time she could steal from school. So, too, with the boy-husband. The overcrowded home, with its want of welcome, throws him on the street. His life, reacting on an unawakened mind, makes his days deadly dull. He craves for excitement—society—change. As he grows from boyhood to adolescence he needs a companion. And so, partly from natural sexual selection and partly, as his age and wages increase, because he associates more with men, he seeks a wife. For his new estate he wants a cook and a washerwoman, and he marries to find he has got neither the one nor the other."

The latest census showed that there were about 2,000 husbands under age, who were not living with their wives. Mr. Brice says that the majority had deliberately separated. "Distant work had taken some away; poverty and crime had divorced others. Among the inmates of London's workhouses are husbands, wives, widowers, and widows of fifteen and sixteen years of age! In London prisons I find that out of a total of 850 persons under age, more than 200 are married. And out of 1,284 under twenty-five years of age, no fewer than 576 are married."

Taking the country at large, under the latest census there were in all 56,398 married persons under age to be found in England and Wales. "The police courts, the workhouses, and the prisons are eloquent of such early marriages," says Mr. Brice. "It seems established beyond controversy that they strew our social life with wreckage. The philanthropists and reformers rage violently against them. The doctors speak ominously of the new generation these child-marriages will produce. All unite in agreeing that they impair the efficiency of the nation." —(*Public Opinion.*)

Hysterectomy for Cancer of Uterus.

BY T. J. BIGGS, M. D.,
Sound View Hospital, Stamford, Conn.

Mrs. T., age 47, American. Diagnosis carcinoma of uterus. Entered hospital Oct. 10, 1901, in a greatly run down condition. She was put on an absolute bovinine diet, until Oct. 14th, when at one o'clock she was given a high rectal injection of bovinine and salt salution three oz. of each, and at two o'clock, under ether anesthesia, I performed an abdominal hysterectomy. Just before the uterus was detached from the vaginal wall, the patient showed considerable shock, and consequently the nurse was ordered to give her another high rectal injection of bovinine and salt salution two oz. each. She responded to this beautifully. The operation was completed by the closure of the abdominal wound, the pelvis being drained through the vagina. Patient was put to bed with the pulse weak and 112. She was given another high rectal injection of bovinine and salt salution, three oz. of each. In twenty-five minutes she was conscious, pulse greatly improved, being 100, and full in character. No nausea, thirst or vomiting. The second day the vagina drain was removed, the wound and the vagina treated by injections of bovinine pure, employed t.i.d. Previous to every injection of bovinine into the vagina, the cavity was washed out with borax solution. These injections were continued three times a day up to Oct. 16th, when twice in twenty-four hours was deemed sufficient. She was now allowed a light general diet together with bovinine. Oct. 24th, the stitches were removed and the abdominal wound found to be healed. From this time on her recovery was uninterrupted and she was discharged cured Nov. 16th.

ENUCLEATION OF THE EYE.*

BY LOUIS J. GOUX, M. D.,
Detroit, Mich.

I am prompted to report the following case to demonstrate the dangers resulting from failure to enucleate eyes which have suffered severe injury and in which there is no possibility of preserving useful sight. Ophthalmologists are agreed that enucleation is indicated in instances of inextricable foreign bodies contained within the eye.

The same unanimity of opinion regarding enucleation does not exist in instances of sightless or atrophic eyes, resulting from trauma or destructive inflammation of the anterior segment of the globe.

The fact that such a large percentage of atrophic eyes become quiet and remain so is apt to develop a state of complacency in the minds of even those who are familiar with the disastrous sequelae which only too frequently develop in eyes which have become atrophic, and quiet, after some destructive injury.

The following case is illustrative of the danger above referred to:

E. J., aged 29, of Port Huron, was first seen by me on June 10th of the present year and gave the following history: About three years ago, while engaged at his occupation of moulder, his left eye was severely injured by contact with hot casting. A violent inflammation followed and about one week later he infected the same eye with gonorrhœal ophthalmia—patient suffering from gonorrhœa at that time. Inflammation continued over a period of seven weeks, at the end of which time the eyeball was atrophic and a dense leucoma occupied the place of the cornea. Vision equalled light perception only. With subsidence of the inflammation, the eye became quiet and remained so until about one

week ago, when it became painful and showed signs of irritation. He obtained drops for the eye, but it became steadily worse. When seen on June 10th he had a well developed panophthalmitis. The condition, however, which occasioned the most concern was the presence in the other eye of sympathetic irritation; this, the patient said, had been developing during the past 36 hours. Immediate enucleation was advised and promptly acceded to. Patient went to Harper Hospital, where the operation was performed. Happily the sympathetic symptoms subsided and the patient returned home one week from date of operation.

Macroscopic examination of the enucleated eye revealed marked increase of tension, large amount of pus in the vitreous, cataractous degeneration of lens, with its anterior surface approximated to the posterior surface of cornea, and complete involvement of the iris in the leucoma.

Though this case resulted satisfactorily, think of the suffering endured, the chance of risk to the other eye, the jeopardizing of which increased with every hour after the onset of the inflammation, and also the damage to personal appearance caused by the retention of a deformed and useless eye.

The fact that we cannot prophesy which cases will remain quiet and which will become irritated and inflamed leads to the conclusion that every useless, atrophic eye should be enucleated, thus obviating the possibility of injury to the sound eye. The patient in such a procedure has nothing to lose and everything to gain.

60 Washington Avenue.

Chance for a Doctor.—There is said to be an opening for a physician in Saline, Mich.

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

WALTER C. BOYNTON, Manager. •

—ISSUED BY—

THE DETROIT MEDICAL JOURNAL CO.,

NOTE.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, to 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., AUGUST, 1902.

The New Wayne County Medical Society.

Viewed from every standpoint, the results of the joint meeting of the Detroit Medical Society and the Wayne County Medical Society at the Hotel Normandie on July 25 last, must be regarded as a momentous one. Certainly the amicable result of the coming together of the two societies, long-time rivals, points to the existence of a better feeling among physicians in general than has been thought to exist; and any discussion which arose as to the name of the amalgamated societies was quite naturally to be expected. The members of the Detroit Medical Society were loyal to their organization when they desired to retain its own name; but they were more loyal to the general good of the profession when they accepted Dr. Mulheron's suggestion as to the way out of the difficulty. The practically unanimous vote showed broad-gauge principles on the part of the now disbanded Detroit Society and was a forerunner of the spirit with which they will enter into the work of making the new society a worthy member of the state society.

The problem of combination must have confronted the authorities of the state society at their recent meeting in Port Huron, recognizing the peculiar conditions that existed in Detroit, the city which would naturally be expected

to contribute the greatest numerical strength and the most forceful organization to the general society in the state. Although younger than the old Wayne County society, the Detroit had nearly 500 members, as against 300 in the older organization, and the spirit of rivalry that existed between the two is now a valuable asset in summing up the usefulness of the joint society to the state. The desire on the part of members in both organizations to emulate each other has brought both bodies to a high pitch of usefulness in the matter of research and expression, which will have a telling effect in Michigan's representative medical organization.

The strength of the American Medical Association is shown from the beginning of the late agitation in Michigan. Realizing that combination was the thing to be secured, the guiding spirits in the A. M. A. have worked intelligently to secure it. And now that the state society has so amended its constitution as to comply with the forms of the large organization the state will be well represented in the national body. It is an exceedingly gratifying thing to see the members of any profession in harmony on any subject—particularly medical men, for chances of discussion are many and the spirit of debate is rampant if not a few. But when 800 physicians band together for the purpose of strengthening the profession in the state it is more than gratifying; it is superb. The combined strength of the two component parts of the present Wayne County Medical Society makes it one of the very strongest medical organizations in the middle west. It is to be hoped that the amalgamation may be complete and the process of assimilation may be uninterrupted.

Credit for the combination must be given to every separate member of bot-

old societies and to the committees from each that paved the way to combination. Drs. Samuel Bell, H. C. Wyman, L. E. Maire, E. W. Jenks and C. A. Kirker were the committee from the Wayne County and Drs. F. B. Tibbals, C. S. McClintock, G. W. Moran, C. G. Jennings and David Inglis represented the Detroit Society. Dr. P. Maxwell Foshay, of Cleveland, took a prominent part in securing the desired effect. Dr. Foshay is a member of the reorganization committee of the A. M. A., and gave an interesting talk on the advisability of combination in general. He was well qualified to speak on his subject.

From now on the interests of every medical man in the Wayne County Society should be advanced, not only through his connection with the state medical society, but through the closer bond of interest which unites him with his own society.

WHAT THE WEST IS DOING FOR CONSUMPTIVES.

The government of the United States for some time past has maintained a military sanitarium at Fort Bayard, N. M., close by Silver City, for the shelter and cure of officers and men in the army who are suffering from consumption. The federal authorities have for some time had it in mind to make the station for this purpose a permanent one and with this end in view suitable appropriations have been made yearly, with the effect of increasing the capacity and efficiency of the institution as a sanitarium for consumptives.

This year the amount of one hundred thousand dollars will be expended in securing enlargements and improvements at the old fort, which was practically abandoned until the government saw an opportunity to revive its useful-

ness some three years ago. Modern plumbing will be installed and a system of hot air heating will be put in place. New buildings are to be erected and many comforts will be added to the present buildings of the sanitarium. Electric lighting and glass-enclosed porches, to serve as a recreation room when the weather is unsuited for out-of-door life, will tend to increase the comfort of the patients, who now number about 150. The number of convalescing men in the institution in summer is generally about this figure, but in the winter months the total number of inmates is in the neighborhood of 200, or even more. With the additions contemplated, there will be room for many additional patients, and the room is really needed, as there is a well-founded good feeling on the part of the men for this particular resting-place. If present plans are carried to completion the government canitarium at Fort Bayard will not only be a permanent institution but it will be the largest of its kind in the world.

The hospital of the Sisters of Mercy, in Silver City, has also felt the effects of the determination on the part of right-thinking people to do all they can towards securing a suitable residence for consumptives. A new wing has been put into the building, all rooms of which open onto porches on both sides of the L, being in effect a succession of small cottages under one roof. The new wing gives needed additional space and modern equipment has been installed.

These things point with some certainty to the belief of many people that the successful treatment of consumption hangs to a large extent on the matter of securing proper climatic conditions for the patient, and when both governmental and church institutions have decided to spend large sums of money in the proper equipment and maintenance of sanitar-

ians for consumptives, it is only a matter of time when we shall see more institutions established in climates similar to that of some localities in New Mexico, maintained either by public enterprise or private interests. Results seem to demonstrate that tubercular patients do well in this section of the country, and we shall watch with interest any further effort that shall be made in the west toward increased chances for the recovery of consumptive patients.

DR. FERGUSON, OF MACON, GA.

Some of our readers may remember that in the May number we took occasion to make some comment on the statements of Dr. Ferguson, of Georgia, regarding the negro. It was not our intention to enter into a defense of the negro specifically. We know that he has his faults, like other people. But it seems that Dr. Ferguson is uneasy under what we had to say. In proof, we desire simply to submit the following judicious, well-considered and temperate communication from Dr. Ferguson himself. It is only fair to state that although Dr. Ferguson asks for courtesy in the matter of giving space to his letter—which we freely grant—he did not take the trouble to send us a copy of the letter, which appeared originally in the columns of the Atlanta Journal-Record of Medicine, pp. 238-239. Nor did he send us a copy of the publication in question. It was seen by a friend, who called our attention to the mention of this Journal, whereupon we sent for a copy, and received it.

But here is Dr. Ferguson's letter:
Editor Detroit Medical Journal:

Your editorial is without provocation and of such a foreign character to the subject you are supposed to discuss that I look upon it as a piece of steeple-eared work. In the first place, the subject I

wrote of was the traits of a nigger, and as fully as in my power and scope of observation, extending over a period of twenty-seven years, did I delineate his characteristics. 'Tis true that I did not view him as a brother, as you in your comments did, but as a nigger, with traits peculiar to the race that I have these long years noted without in any way having a desire to hug or kiss the black brute. In their place, as cattle, I have the highest regard for them, and if left to me would emasculate all the males and ovariotomize all the females, so as to stop the breed, or send them to Michigan, where they would be properly cared for and treated like brothers and sisters by the Michiganders, where they could rape a few wives and daughters without the danger of being burnt at the stake, as well as steal all they could get their hands on. You think they are not properly treated here. They are looked upon as cattle, and very good ones at that, and are accordingly worked. A piece of advice: When they get there keep everything under lock and key; glue your shirt to your back and cement your pillowslips to the pillows and bed sheets to the bed, or you will lose them. Some smart fellow can devise a means by which to bottle up some of their effluvium in summer for winter use, so you will always be certain to have at least his characteristic odor with you. He might also save the clippings of wool and start a knitting factory for socks. In my article I did not say that any feature was a *sine qua non* to his usefulness, as you so flagrantly misrepresent me, but simply gave his traits or ethnology as they appear to all of us here, who are very much kinder to him than any one living North. I do not happen to be a Southerner, as you quote me, but am a Canadian, and have made this my home for twenty-seven years, and all I have written about the

race is nothing but their traits as they appear to me.

Inasmuch as you have assailed me in the manner in which you have, in justice to myself and journalistic courtesy due me, I ask space in your Journal for this reply.

Yours, E. G. Ferguson, M. D.,
Macon, Ga.

After this, we are silent. Dr. Ferguson is so illogical and contradictory that it is worse than useless to attempt to discuss any question with him. In one breath he says that if he had his way he would castrate all the males and perform ovariotomy upon all the females; in the next he says that the people in the South are all kinder to the negro than anyone living in the North.

It seems that we made a mistake in referring to Dr. Ferguson as a southerner. Apparently he is merely sojourning there for a trifle of twenty-seven years. We apologize to Dr. Ferguson for our error in locating him. We also apologize to the South.

EDITORIAL NOTES

At Saratoga Springs, N. Y., on June 9, was organized the National Association of United States Pension Examining Surgeons. On account of the large number of these surgeons and the peculiarities of their work, the desirability of such an organization has been felt for some time, and several suggestions have been made with this end in view, but no substantial progress was made until the meeting at Saratoga Springs.

This was successful in every way. A large number of enthusiastic examining surgeons were present, a permanent or-

ganization was affected, and officers were elected for the coming year. Several interesting papers were presented and, by special invitation, Dr. J. F. Raub, Medical Referee, favored the Association with a paper, full of invaluable suggestions concerning the work of the pension examining surgeons. This, by vote of the association, is to be printed and sent to examining surgeons the country over.

During the coming year a vigorous and earnest attempt is to be made to interest every pension examining surgeon in the United States in this organization, and to induce as many as possible to join it. Inasmuch as these number about 4,000, all picked men, it is evident that the association is probably destined to become an important factor in the medical life of America.

The officers elected for the ensuing year are: President, Wm. A. Howe, M. D., Phelps, N. Y.; Vice-President, Wm. H. Hall, M. D., Saratoga Springs, N. Y.; Cyrus L. Stevens, M. D., Athens, Pa.; Charles James Fox, M. D., Willimantic, Conn.; G. Law, M. D., Greeley, Col.; Secretary, Wheelock Rider, M. D., Rochester, N. Y.; Treasurer, Charles H. Glidden, M. D., Little Falls, N. Y.

The executive committee is made up as follows: The President, ex officio, F. W. Firmin, M. D., Findlay, Ohio; John VanRensselaer, M. D., Washington, D. C.; J. Sutcliffe Hill, M. D., Bellows Falls, Vt.; Warren E. Anderson, M. D., Pensacola, Fla.; Henry Allers, M. D., Newark, N. J.; J. H. Maxwell, M. D., Newton, Ill.; G. Lane Taneyhill, M. D., Baltimore, Md.; and Joseph E. Jones, M. D., DeSoto, Mo.

All members of Pension Examining Boards and all Expert Examiners are eligible for membership, and any such may become a member by sending his name and the dues for one year (one dollar) to the Treasurer, Charles H. Glidden, M. D., Little Falls, N. Y.

In connection with the matter of Dr. Ferguson, mention of which is made in another portion of the Journal, we desire to publish an editorial from the *Atlanta Journal-Record of Medicine*, pp. 240-242, July, 1902. It is as follows, *verbatim*:

The article which appeared in this journal some months ago on "Negro Traits," and contributed by Dr. E. G. Ferguson of Macon, has moved to speech some of our colleagues in the North and West. The editor of the *Detroit Medical Journal* was especially fervid in his criticism of the article. In this issue may be found Dr. Ferguson's rejoinder. Without reopening a question which seems destined never to be satisfactorily adjusted, it may be said that Dr. Ferguson's estimate of the negro character is in the main correct and coincides with the observation of all those who have been familiar with the ways of negroes by residence in that part of the country where they are the most numerous. Dr. Ferguson's remarks we take to apply with special force and accuracy to the Guinea negro, who is perhaps the type most frequently seen in the South.

It may be interesting in this connection to include the description of the Guinea negro by a French traveler and writer, Girard de Rialle. He describes him as being nearly always below medium height; the skeleton is powerful; the spinal column shows the three curves less than in the white man; the legs are bowed, making the lower extremities relatively longer than the upper; the foot is flat, the heel elongated; the shoulders are not very heavy, but the neck is short and powerful; the skull is ordinarily dolichocephalic, but among some individuals and tribes it is mesaticephalic and subbrachiocephalic. The cranial capacity of the negro is sensibly less than in the white races. The occipital region

is greatly developed; the frontal region on the contrary very slightly so. The superciliary ridges are but slightly prominent. The eyes are rather close together. The nose is flat, scarcely projecting beyond the level of the face. The teeth are white and sound. Prognathism is marked in the whole face, or only in the sub-nasal region, in which case the chin is flying. The pilous system is poorly developed. The hair of the scalp is short, black, woolly, and covers the whole head uniformly. The body is glabrous, except in the pubic and axillary regions. The eyes are black, with yellowish sclerotics; dark spots are found on the tongue, velum palati and conjunctiva; while on the contrary the hue is lightest on the palms of the hand and soles of the feet. The skin elsewhere tends toward an intense black, but may be reddish, yellowish or even bluish. The negro is a grown-up child, swayed by the impulses of the moment, and the absolute slave to his passions. He is quick, inconsistent, happy and smiling, pleasure-loving, fond of dancing and such amusements. Vain to excess, he experiences the need of a master to speak with authority and make him feel the master's superiority. He is, nevertheless, familiar with every one and has no real pride. He is hospitable and willing to share all he possesses with his friends. He is vindictive and exceedingly superstitious. He freely prostitutes his women from hospitality or for love of money. He is fetishistic and dominated by fear of demons. This account coincides with Dr. Ferguson's estimate of the negro.

Miscegenation has created a type by itself, the mulatto, who partakes of the characteristics of both bloods to the detriment of the white, and shows marked physical deterioration and lessened resistance to disease. However, such persons of color sometimes display mental qual-

ties consistent with their white blood, and some have attained prominence in various directions. Dumas *père* is an instance in point. Booker Washington, the present leader of the negro in this country, is the royal bantling of a black mother and a white father. But these are "sports," exceptions, the great mass toeing the prescribed line of racial capability and trait. Occasionally a pure blood negro detaches himself from the crowd, but even in the enlarged perspective he remains the unaltered negro, and makes of himself a spectacle that excites more pity than admiration, as in the unhappy fate of Toussaint L'Ouverture.

It is an impossible task for a man of American birth and ancestry to discuss the negro question dispassionately because this question was the occasion of the nation's greatest tragedy, the effects of which and the mental attitude caused by it still exist. Prejudice and prepossession often extend even into ethnological considerations of the negro, so that attempts at scientific discussion are apt to be tinged by the writer's personal feeling in the matter. The subject had best be left alone and allowed to work itself out in accordance with that natural law which seems to forecast the doom of the negro. The implantation upon a primitive, crude and poorly resistant organism of the vices of the injured and sophisticated products of civilization, with the inevitable consequence of disease, is working toward the final extermination of the blacks. This is to the mind of the thinking men in the South the solution of the problem. It is the hand of fate, and argument on paper of theories for amalgamation and colonization are futile against it.

"The moving finger writes, and having writ,
Moves on, nor all your Piety and Wit
Can lure it back to cancel half a line,
Nor all your tears blot out a word of it."

Gen. George M. Sternberg, U. S. A., retired, was a guest at the Russell House last month, resting on his way to Cobourg, Ont. He is quoted as saying that the chief danger to American troops now in the Philippines rises from the presence of cholera in the islands, although he adds that when proper sanitary precautions are taken the men are comparatively immune. This very immunity has given rise to a feeling of distrust and dislike for the soldiers on the part of the natives, who believe that the Americans have been the prime cause of the plague, which is quite prevalent at present. The foreigners are accused of poisoning the wells in order to decimate the population and this belief is proving an obstacle to the establishment of a better understanding between the natives and the invaders. The civil commission is busily at work, trying to check the cholera, but the fact that the natives regard the disease as inevitable is working against the accomplishment of their labors. Every precaution is being taken to render the United States troops immune to the attacks of the malady.

Kalamazoo's health department is interested in the subject of education along vital lines and one of the little circulars issued by the department, on the care of infants in hot weather, is a good example of the work they are doing. Dr. H. O. Statler, health officer of the city, is interested in seeing to it that mothers in general are instructed along rational ways in the care of their very young children, with especial reference to care in the diet while the weather is hot. Arrangements have been made for the free distribution of the circulars to those who feel the need of them and the language used in giving directions is of commendable simplicity and clearness. A person of the aver-

age intelligence should have no difficulty whatever in thoroughly understanding the instructions given, which look particularly toward those things that ought not to be done. There is no end of good common sense in the little pamphlet, and the idea is one that might be emulated with profit by other cities.

The fifteenth annual meeting of the American Association of Official Surgeons will be held in Chicago September 10th and 11th, 1902. A programme is being made up of lectures and papers by the leading specialists and practitioners in rectal, genito-urinary and gynaecological work, and in the treatment of all chronic diseases. The official surgeons are the workers in the great field of the reflexes and the profession generally is every day brought closer to a realization of the fact that the reflexes play a most important part in the chronic manifestations of disease. Papers and discussions will cover the entire scope of the work, preparatory, operative and therapeutic, and the sessions will be of great benefit to all who attend. H. C. Aldrich, M. D., of Minneapolis, Minn., president; Ralph St. J. Perry, M. D., of Farmington, Minn., secretary.

Mt. Clemens was the location of the summer session of the North-eastern District Medical Society, held at the Avery-Egnew on July 31. The morning was given up to a business session and the physicians of the Bath Town gave their guests a luncheon in the hotel roof-garden in the evening. Papers were read by Drs. C. C. Clancy, of Port Huron; T. H. Smith, of Mt. Clemens; C. B. Stockwell, of Port Huron; T. A. McGraw, of Detroit; and W. P. Derck, of Marysville. The officers of the society are: Dr. G. S. Ney, of Port Huron, president; Dr. William Blake, of Lapeer, vice-president;

Dr. A. H. Cote, of Port Huron, secretary and treasurer. The visiting physicians were the guests of the Physicians' Protective Association, of Mt. Clemens.

Boston is having plans drawn for a floating hospital for children. That's a good idea, and we can suggest a splendid location for one in Detroit, if the authorities are ever able to secure one for the use of the city. Put the boat at the foot of Belle Isle, where it would be out of the way of the shipping, and where the little patients can have the benefits that are sure to come with open-air life. The Boston plans are said to be quite elaborate, but Detroit need not go deeply into the matter of expense. Past experience has shown the practical inutility of hopes for contributions for such a purpose, but it does seem as if we might have a small boat of some kind that could do untold good in alleviating the suffering of little ones in the hot weather.

Dr. Garnault, a Parisian physician, has twice inoculated himself with tuberculous matter from a cow suffering from tuberculosis, in order to disprove Koch's theory regarding the impossibility that exists for human beings to contract tuberculosis from cattle. This seems like going pretty far in the interests of science, especially when it is known that his second test consisted in inserting under skin of his left arm a portion of tuberculous matter from the liver of a cow. In view of the fact that this sort of inoculation on the lower animals ordinarily produce a comfortable death inside of eight weeks, it will be interesting to hear further from Garnault's case.

The seventh annual meeting of the Upper Peninsular Medical Society was held at Ishpeming, Michigan, on July 15 and 16 last. Dr. Walter R. Hicks, o

Menominee, president of the society, delivered the annual address and Dr. B. D. Harison, of Sault Ste. Marie, read an interesting paper on "Medical Reciprocity or Inter-State Exchange of Licensures." Other papers were read by Drs. A. I. Bouffleur, Chicago; J. A. Crowell, Iron Mountain; F. McD. Harkin, Marquette; William Allen Pusey, Chicago; Heman Spalding, Chicago; P. J. Noer, Menominee; Ludwig Hektoen, Chicago; C. O. Theinhaus, Milwaukee; James Hosking, Allouez; E. T. Abrams, Dollar Bay; and E. D. Gardner, Hancock.

Christian Science seems to be looking down a trifle. A coroner's jury in Spokane, Wash., recently brought in a verdict that the death of Mr. and Mrs. George Graham's three little children was due to diphtheria and that the parents were guilty of criminal neglect in failing to secure competent medical assistance. From Flint comes the word that notice has been served on a mother to the effect that if her daughter, now seriously ill and without medical attendance, dies, she and the Christian Scientists who are attending the girl will be held legally responsible for her death. The prosecutor of the county has instructed two physicians in good standing to call daily at the house and proffer their services.

Telegraphic advices from Manila advise that within forty-eight hours at the end of last month there were 150 fresh cases of cholera reported in that city. These are understood to be chiefly among the natives, as the Americans are generally free from the ravages of the disease. The lack of preventive measures among the Filipinos is undoubtedly the cause of the difficulty, since the Americans are using all means in their power to assist the natives in keeping the disease in check.

The American Electro-Therapeutic Association, according to a recently issued announcement, will hold its annual meeting at the Hotel Kaaterskill, Catskill Mountains, N. Y., on September 2, 3 and 4 next. The programme thus far announced includes several expeditions of a pleasure-seeking nature, a banquet and two balls. The railroads have made a special rate good from August 30 to September 5. Dr. Robert Newman, 101 E. Eighth St., New York City, is chairman of the executive council and Dr. William Stevens, 70 W. Fifty-Second St., New York City, is secretary of the committee on arrangements.

The following physicians have been appointed to serve on the various committees of the Detroit Physicians' Association by Dr. Daniel Kerr, president of the association: Finance—Drs. Walter J. Cree, F. J. Sober, S. H. Knight; Collections—Drs. J. M. Collier, C. E. McKean, A. Van der Velpen; Legislation—Drs. J. W. Ames, G. H. Sherman, A. N. Collins; Public Abuses—Drs. L. J. Hirschman, H. L. Obetz, C. C. Gordon; Public health—Drs. J. F. Bennett, F. L. Loranger, J. G. Kirker; Public charities—Drs. J. A. McVeigh, W. Gillett, J. H. Andries.

A Handsome Diet.—A small colored girl went to a drug store and said to the clerk, "Ma mammy wants some of the handsomest dye ye got."

"The handsomest?" repeated the clerk. "Well, I don't know. What does she want it for?"

"She done got the misery in her stummick, and de doctor say she must dye it; and she says if she hab got to dye it she want it a handsome color."—(Judge.)

In Epilepsy.—Brewer, in the *Medical World*, lays down this rule of treatment: Forty days' fasting, no food except pure water. Fits ceased after tenth day.

Ringing in the Ears.—Hydrobromic acid, dilute m. xv, t.i.d.; or fl. ext. cimicifuga gtt, xxx, t.i.d.—(*Medical World*.)

NEW INSTRUMENTS & DEVICES

Mention of new instruments and devices in this department is entirely complimentary and articles illustrated are judged on their merits.

We invite manufacturers and physicians to send us matter suitable for publication under this head. A description of the device and an electrotype or half-tone with a base not greater than two and five-eighths inches should be sent.

Always mention the price of the article in question.

The management cannot undertake to return cuts unless postage for same accompanies the letter with which they are sent.

FOLDING WATER BATH.

Uses for a bath-tub in the absence of a regular bathroom are many, and the device illustrated herewith will recommend itself to the profession, especially among people whose houses are not furnished with conveniences for bathing. The bath is 58 inches long, 25 inches wide and 16 inches deep,, with a taper of ten inches from the top to the bottom of the tub. A heavily coated pure rubber duck, black on both sides, is used as the material out of which the receptacle for water is made, and this is secured to a frame-work of wood, the bottom of the bath resting on the floor.



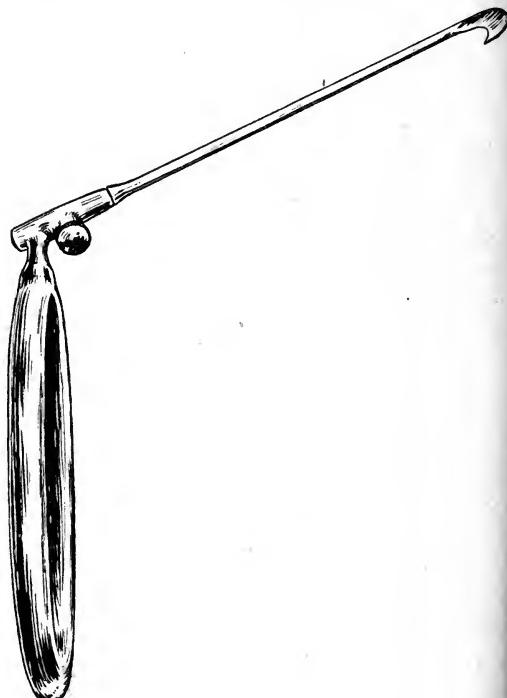
In typhoid cases a bath can be quickly and easily administered in the patient's own bed-chamber, as the tub requires only two bucketfuls of water to be placed

in it before it is ready. The interior of the tub conforms quite closely to the body, and this explains the small amount of water necessary for a bath. The fact that no strain comes on the edges of the rubber duck makes it possible for even large patients to be safely bathed. Uses in cases other than those of febrile diseases will readily suggest themselves to the profession and the laity alike, as for instance at summer cottages and in cases in which it is desirable to avoid the change necessary in taking the individual to be bathed to the bath-room.

The bath folds easily into a space 60 inches long, 27 inches wide and two inches thick. It is strongly made, of good material, and retails for the sum of \$6.00.

Turbinate Knife.

This is said to be the most satisfactory instrument of the kind upon the market

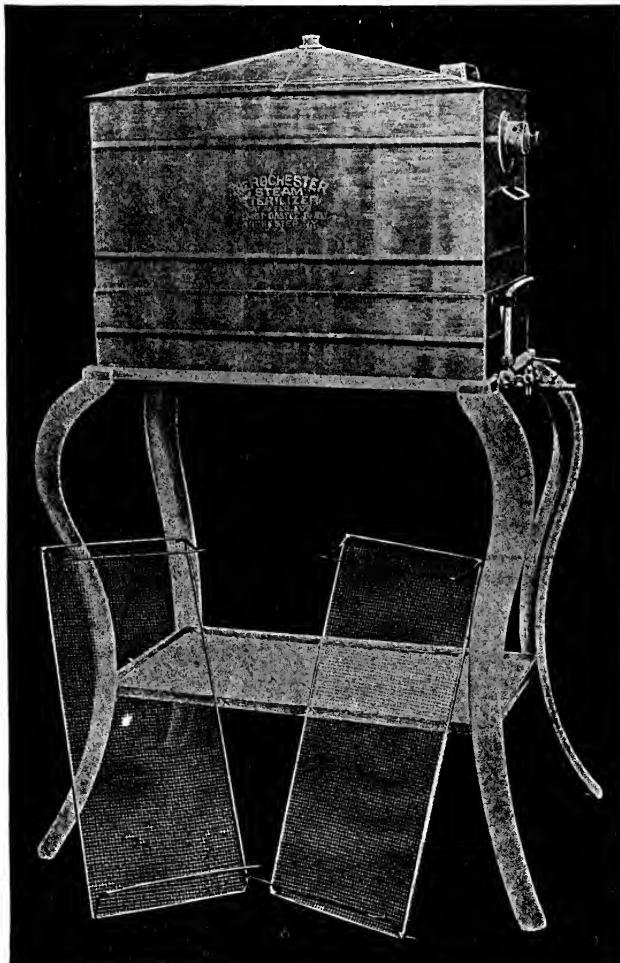


at the present time. The knife from base to tip measures five inches and the handle is four inches long—so that a good grip

is readily secured. The peculiar character of the knife renders it particularly well adapted for removing the middle and the inferior turbinate bodies. The hooked blade is simply passed behind the body to be removed and is then drawn forward, removing the bone with ease and rapidity.

The blade itself, though thin, is strong and its concave edge, like that of a prun-

sterilizer. Steam can be turned into the sterilizing chamber by means of a simple valve, hot air is easily admitted, or the base may be used for sterilizing by boiling water, one per cent. soda solution, while the upper chamber is using either steam or hot air. The advantages of this range of combinations must be evident, and the fact that hot air can be utilized for the rapid drying of steam-sterilized



ing knife, insures a good edge-hold on the body whose removal is desired. It is a new instrument, but has been carefully tested, with gratifying results to the users. Its price complete is \$2.50.

INSTRUMENT AND DRESSING STERILIZER.

Three methods of sterilization are capable of being utilized in this form of

instruments or dressings makes this form of sterilizer very handy.

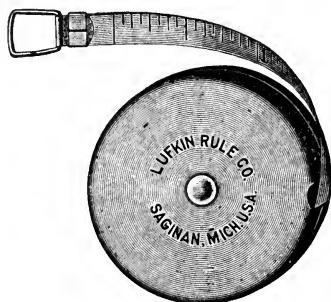
The size and style illustrated herewith is suitable for a hospital, the sterilizing chamber being 22 inches long, 10 inches wide and 10 inches deep, giving over 2,000 cubic inches for purposes of sterilization. Beneath this chamber is a base, 24 inches long, 12½ inches wide and five

inches deep, where sterilization with hot water can be carried out. The two trays shown in the cut serve to hold instruments and dressings, and the white stand is provided with a gas connection. Arrangements for a coil, to be used in steam sterilization, are easily made.

The price of the size illustrated is \$35.00; copper, tin-lined, with brass fittings. Nickle-plating, stand and so forth increase the price somewhat, but it can readily be kept within \$50.00.

PHYSICIANS' TAPE-MEASURE.

The tape-measure illustrated herewith offers several advantages to the user, over those commonly in use. It is made entirely of metal, thus harmonizing with

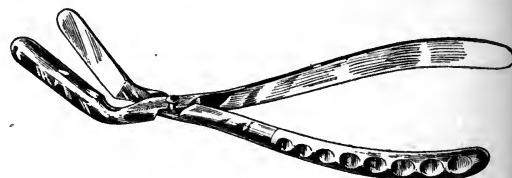


the modern ideas of the appearance that apparatus should make, and its construction entirely obviates the chances of the tape itself stretching unduly, permitting too large measurements to be registered. The metal tape is much neater, smaller and better than the tape made of cloth or other similar fabric, and costs but little more. The measure in question is graduated on both sides, metric and English system, and sells for \$1.25.

NASAL COMPRESSION FORCEPS.

These are made heavy and broad, owing to the fact that other forceps in use frequently fail to cover the desired area. Dr. David H. Lewis, of Akron, Ohio,

says of this particular form of forceps: "The nasal compression forceps were made for me about two years ago, and



were made heavy and broad, owing to the fact that all other forceps failed to cover the area desired. Asche's forceps are too narrow in most cases, and Rose's are too weak. To use Roe's forceps successfully, the septum must literally be cut loose, and in cases in which a long deviation exists Asche's forceps are of poor service. With the forceps in question, after incisions are made the parts can be brought together without an unseemly exhibition of strength."

The forceps are ten inches in length, with French lock, and are easily rendered sterile. The blades come sufficiently close together to admit of close pressure, and much force can be exerted at the blades, without great strain at the handles. They retail to the profession for \$5.00.

Help for Needy Consumptives.—Henry Phipps, of Pittsburg, has presented the Whitehaven Sanatorium with \$2500, after having visited the sanatorium. This will provide 10 additional beds for a year, bringing the number of patients in the hospital up to 50 men. Three new cottages for women are soon to be erected.—(*Philadelphia Medical Journal*.)

More Quack Damfoolism.—One sided breathing was recently recommended by a quack in Königsberg, Germany, to patients suffering from tuberculosis, so as to give rest to the lung involved. This he gravely announced, could be readily accomplished by stopping with the finger the nostril on the side affected, a patient whose right lung was affected breathing through his left nostril, etc.—(*Western Medical Journal*).

THERAPEUTIC BREVITIES

New Animal Membrane.—Dr. Robert T. Morris read an interesting paper on something rather new in the way of a preventative against the formation of peritoneal adhesions at the meeting of the surgical section of the New York Academy of Medicine last April. Dr. Morris is the professor of surgery at the New York Post Graduate Medical School and the substance of which he wrote is known as Cargile membrane and consisted of a very thin goldbeaters' skin, made from the peritoneum of an ox. This substance had been submitted to a sterilizing process, with the result that it could be experimented with in abdominal surgery. Since that time it has been put into marketable shape and is now sold to surgeons. It takes its name from Dr. Charles H. Cargile, of Bentonville, Arkansas, and is used in cases in which Senn's grafting would ordinarily be employed. The membrane, when applied, is said to become adherent at once and to closely resemble a normal peritoneum covering.

Experiments were made at the physiological laboratory of the College of Physicians and Surgeons, with rabbits as the subjects. The results are said to have been most gratifying from every standpoint. The substance is used also in brain surgery, and Dr. Morris states that it forms a very good dura mater for temporary purposes. He also prophesies success for it along the line of plastic eye surgery. Cargile membrane is likely to come into not uncommon use.

Arsenic and Cancer.—At the Bolingbroke Hospital Mr. Jonathan Hutchinson first lectured on "The Nature and Causes

of the Prevalence of Cancer." The lecturer referred to the increase of arsenic in medical prescriptions, remarking that at the present time the drug was used three times as much as thirty years ago.

Used mildly, arsenic might be beneficial, but an undue use caused cancer in some cases, and in others greatly aggravated it. He strongly condemned wall papers of a green color, because there arsenic was prevalent, and cancer might ensue. A lengthy reference to the beer poisoning at Manchester was concluded with the remark that by no means were they to assume that arsenic in beer was deleterious; rather was it in the form of a tonic. The effects of an undue use of arsenic were shown by various sketches, and the conclusion to which the lecturer came was that arsenic was the chief factor in causing cancer.

Mr. Jonathan Hutchinson writes to us, under date of June 12, as follows: "In the notice in the Times of to-day of my Bolingbroke lecture on cancer there is an error which I must ask your permission to correct. It is said: "The conclusion to which the lecture came was that arsenic was the chief factor in causing cancer." I certainly did not express, nor do I hold, any opinion so sweeping. I did say that it was proved that the long-continued use of arsenic might cause cancer, and that therefore we might feel sure that it had to some extent contributed to the increase of cancer which has occurred during the last century. As to how great its influence may have been we can for the present only conjecture, but probably it has been but small. I referred the increase of cancer chiefly to the increasing longevity of the race, which has brought about the result that a larger number now live to attain the age most liable to cancer than was formerly the case. I mentioned also several other contributory causes."—(London Times.)

Consumption and Bacilli.—Dr. Herman M. Biggs, medical officer of the New York health department, had for his subject before the summer school, in philanthropic work, conducted in New York by the Charity Organization Society, "The Warfare Against Consump-

tion." He is quoted as having said in part:

"It is unfortunate that in the popular mind tuberculosis is so often classed as a contagious disease. It is infectious and communicable, but a tuberculosis patient may live in the same room for days and years with a healthy person without danger to the latter if proper precautions are taken. The chief danger is from bacilli thrown out from the respiratory tract. In advanced cases as many as 3,000,000,000 are thrown out in a single day. They are inhaled as dust and lodge in different tracts in the system. If conditions are favorable to growth they multiply there. But the tubercular bacilli do not multiply outside the system. They tend to die. Infection is by the original bacillus, if at all. Large numbers are quickly destroyed. Direct sunlight destroys them quickly; daylight in time. The danger is in damp, dark rooms.

"This general insusceptibility to tuberculosis is very great. It is only at certain times and under certain conditions that a large proportion of persons are susceptible. It is quite as true that a vast majority of the human race are susceptible at certain times, when, for instance, resistance is decreased through grip, over-work or rundown conditions. Susceptibility is much greater when the air, as in a large city, contains enormous numbers of other micro-organisms. Tuberculosis is absolutely preventable, and its preventability is simply putting into effect simple rules of conduct. It is a question solely of scrupulous cleanliness in regard to expectoration and disinfection of surroundings which have once housed the disease.

"It is not only preventable, but curable. It is simply a question of how early a diagnosis is made. If it can be made at the beginning, eighty per cent. at least of the cases are curable. But tuberculosis is the most insidious of all diseases. A specialist may declare no indications of it whatever, and in a few weeks it may be manifest to anyone. When there is any question one examination is not enough. When a cough continues for more than six or eight weeks in a large majority of cases there is back of that

cough a tuberculosis focus. When any one talks to you about chronic bronchitis and continued colds make up your mind that in a majority of cases a tuberculosis focus is back of it. Then is the time to establish this fact, for then it is easily curable; later it may not be. People so dread being told they have tuberculosis and physicians are so fearful of alarming them that tens of thousands die because their physicians have not the moral courage to say to them, 'This is tuberculosis, and now is the time to take precautions.'

"You may think I am a crank on the subject, but I speak from large experience in autopsy work, which tells the story finally and which has told this story. In the case of autopsies in New York hospitals which have come under my knowledge, fully sixty per cent. had had, some time in their lives, tuberculosis. Of these a little more than half had died of that disease. The remainder had recovered and in many instances had not known of its existence in their systems. A third of those who die in our hospitals die of consumption. In some of the older cities of Europe the proportion is much greater."

Linen Thread for Sutures and Ligatures.—Arthur E. J. Baker says that this material can be obtained everywhere, and that it is relatively very cheap. It can be easily sterilized by boiling in plain water, and then stored in methylated spirit. It is enormously strong, and ties a most uncompromising knot. It is easy to work with, and runs through the eye of any suitable needle easily, having been spun with special care in order to travel evenly through the sewing machine needle. He has used several sizes, and now limits these to three, viz., No. 40, which is as thick as need be desired for the abdominal wall or ligature of the larger arteries; No. 60, which is thinner, but still very strong; and No. 90, which is as fine as can be desired, say for a suture of the intestine. He finds it convenient to procure No. 40 as a white thread, No. 60 in red, and No. 90 in black. He has prepared it by simply boiling it for an hour in ordinary water, and then keeping it in spirit. A little of the dye

comes out of the finer sizes in boiling, but does not appear otherwise to alter the thread, which can be boiled over and over again without rotting it. It is well borne by the tissues, and altogether seems to be an ideal article for the purpose named.—(*Medical Record.*)

Salicylates.—The following annotations are taken from a report of the New York Association of Medicine, published in the *Medical News*: D. Simon Baruch said that to get the effect from the salicylates without their inconveniences pure salicylic acid should be used; only that derived from the oil of gaultheria should be employed. With this Dr. Baruch gives ten grains of sodium bicarbonate, making an extemporaneous sodium salicylate. He gives twenty grains at about four in the afternoon and the same dose at six, eight and ten, until the patient has taken about eighty grains. The tendency to salisylism is slept off, though the ears may ring until about noon next day. Compresses of cool water give comfort to the joints. If the temperature be high, water should be used abundantly.

Dr. Abraham Meyer thinks that only the salicylic acid from genuine oil of wintergreen should be used. There are two other kinds of salicylates, the synthetic and that made from synthetic oil of wintergreen. These cause disturbance of the stomach and delirium.

Chinese Physicians.—A doctor writing in the *Chicago News* has given some interesting information concerning the habits of the wily heathen who practices medicine. He says:

Chinese medical men are not compelled to pursue any particular course of study and are not able to obtain any university degree. Consequently doctors have no great social standing. Medicine may be practiced by any one. It is only necessary to hang out one's name as "Dr. Wang" or "Dr. Li" to become a physician. This seems easy enough; but doctors are liable to heavy penalties in the event of the death of a patient.

Chinese *materia medica* is extensive and nonsensical in the extreme. The native doctors have acquired an empirical

knowledge of the action of certain remedies, notably of several purgatives and anodynes, but with no certain methods of diagnosis their use of these remedies is often fallacious.

A Chinese doctor feels the pulse in both the wrists. He places three fingers of his right hand over the radial artery of first one arm and then the other. In the first arm he says he can tell by his first finger the condition of the spleen, which is very important. The second finger tells him the condition of the lungs and the third the state of the liver. On the other arm he detects in like manner the diseases of the heart, kidneys and stomach. He leaves the brain, the arteries, venous and nervous systems entirely out of consideration, as his books do not tell him anything about such systems. The pulse and the pulse alone, to his mind, is an indication of the locality of the disease. It is not at all uncommon for women patients to thrust an arm out from the curtained bed that the physician may feel the pulse and make his diagnosis on that basis alone. If the patient recovers the doctor is credited with the cure; if the patient dies he is accused of murder. Remedies must produce immediate favorable results or the doctor is dismissed and a new one employed. I have known of eleven doctors being sent for in one day. The patient in this case pulled through after taking eleven doses, the last doctor, of course, getting the credit of the cure.

Several years ago I was called to see the little 6-months-old grandson of the governor of Pekin. The child was in convulsions from having eaten a quantity of indigestible material when it had only two or three teeth. Each one of a number of Chinese doctors had poured down the infant's throat, without effect, some decoction of nastiness, the last dose of which was powdered scorpions' tails. By means of chloroform, a hot bath, ice to the head and other remedies, I managed to bring the infant around, much to the joy of his grandfather. If the child had died I would have been blamed with killing him, especially as I had dared to use ice, a remedy that the Chinese doctor not only does not use, but condemns as the cause of many fatal illnesses.

The native physicians are great believers in the efficacy of counter-irritation, which they use in the form of antimonial and arsenical plasters, often creating intractable ulcers, generally both painful and useless. Their fees are exceedingly small, the usual rate in Peking being about 30 Mexican cents (15 cents), but they frequently make up for this by providing the medicine, for which they charge in proportion to the wealth and credulity of the patient. One patient of mine paid his native doctor 30 cents for his visit and \$150 for the velvety fur from a young deer's horns, which was prescribed as medicine.

If the patient recovers he often has a memorial tablet of heavy wood carved in characters setting forth the disease from which he suffered and of which he was marvelously cured by Dr. Wong or any other doctor. This tablet is hung on the wall outside the doctor's residence and is a lasting testimonial and useful advertisement to his ability or more often good luck. Some doctors have a dozen or more of these large wooden testimonials hung on their walls. A doctor's house which I often pass has boards reading thus: "His hand touched and life returned." Another: "In diphtheria the only savior." Another: "His art is great." Still another: "Due to him, I live again." One day in passing this place in a cart with a Chinese friend I pointed to the numerous boards and said: "That must be one of your great doctors, judging by the number of grateful patients he has cured." "He!" rejoined my companion with scorn. "He had every one of those boards made himself. The people he is supposed to have cured never existed."

Some doctors have recipes that were handed down to them by their ancestors and keep them in their family, telling only one member in each generation how the nostrum is prepared. Some of these formulas have great local reputations, but they are never widely known. Since the introduction of vaccination by medical missionaries, the former terrible ravages of small-pox have been much abated; but when they cannot get vaccine matter they will vaccinate with condensed milk, believing that the milk of the cow ought to be as good as the serum,

especially as its inoculation often produces a sore, due doubtless to germs of a pus-producing character introduced through the abraded surface. Tuberculosis and blood disease are often spread by means of careless, uncleanly vaccination; but notwithstanding all the uncleanliness and the unscientific methods, small-pox has decreased enormously within the last thirty years, and vaccination is thoroughly believed in everywhere.

Western medicine and western methods of treatment of disease are steadily increasing in popularity. They have been introduced by medical missionaries in all the larger cities through free dispensaries and hospitals. The natives in this way have acquired some faith in foreign drugs. Many of the purely native drug stores are now selling certain samples that the masses can use without danger, such as senna, Epsom salts and vaseline. In Shanghai, Hong Kong, Tien-Tsin and Pekin are native drug stores where only western remedies are sold, and where a more or less full stock is carried. The late Li Hung Chang was one of the first converts to a belief in the superiority of western medicine.

Heat of the Sun.—Prof. Charles Wilson has announced to the royal society a new determination of the temperature of the sun. His figures are 6,200 deg. C. (11,-192 deg. F.). It is stated that the absorption of the sun's atmosphere probably makes this temperature equivalent to 6,600 deg. C. at the surface.—(*Scientific American.*)

Dr. Watson in the Philippines.—Dr. Harry J. Watson, of Toronto, who was graduated from Trinity Medical College in 1896, formerly in practice at Ottumwa, Iowa, has just been appointed chief of the medical department of the largest brigade hospital on the Islands. He entered the U. S. Army Medical Service, a year ago, and has recently been recommended for distinguished service in presence of the enemy. Over 475 physicians are on the active service list of the U. S. Army in the Philippines.—(*Philadelphia Medical Journal.*)

NOTES & COMMENT

Sudden Death Among Women in Confinement.—Sudden death in the case of confined women may depend on widely different causes.

From the medico-legal standpoint, it is very important to know that in many cases it is impossible at the autopsy to discover any lesion which would give an explanation for the accident. An intra-uterine injection, made with the greatest care, carried out with every precaution, may be followed by a fatal syncope. In the case reported by M. Bonvalot, the liquids made use of were tincture of iodine, perchloride of iron and sulphate of copper, and nothing especial was discovered at the autopsy.

A fatal syncope may supervene in the course of labor, without the slightest provocation (Gélis), or following a simple vaginal injection. Lorain, giving an injection with a glass syringe to a woman afflicted with vaginitis, saw his patient suddenly succumb. The contact of a cannula introduced into the cervix for a criminal purpose, and without any injection having been made, brought on a fatal syncope; and simply touching the vagina was followed, in one case, by this accident.

Even when death itself does not supervene, the different manœuvres that we have just enumerated are sometimes followed by grave disturbances: prolonged loss of consciousness, convulsions, etc.

It is evident that in cases of this kind we have to deal with the phenomena of inhibition, that is to say: "with an act by virtue of which a property or an activity, or a function or simple action disappears completely or partially, suddenly or very rapidly for all time or for a temporary period, in one or several portions of the organism, at a distance from an irritated point of the nervous system."

Syncope, however, sometimes follows phenomena which explain it perfectly, such as severe haemorrhages, very great pain or an obstetrical operation of long duration.

M. Vinay, who has recently issued some important notes on the subject under discussion, gives great importance to embolism of the pulmonary artery or that of the right side of the heart as a cause of sudden death. The venous coagulation which is the origin of the embolism is ordinarily produced where there is a mild infection; in certain cases, however, this is not followed by the slightest phenomena of septicæmia, serving to lead to the formation of a thrombus. And there is scarcely any cause to which to refer the difficulty except anaemia, leading to swelling, hemorrhage, etc. Frequently small emboli are formed in the lung before the trouble can be located; then slight syncope is produced, with an accession of dyspnoea, sudden side-lights on the case, whose prognostic value is great.

Ehrendorfer has noted that death may be caused by simple thrombi, non-inflammatory, of the sinuses. The same writer has insisted on the relative frequency of fatty degeneration of the heart as a cause of sudden death in confinement or during the puerperal period. In a general way, M. Vinay believes that the danger of valvular difficulties when confinement is expected has been greatly exaggerated but he regards the danger of cardiac degeneration as very grave.

Sudden death sometimes comes as the result of the introduction of air into the uterine sinus. This accident may occur as the result of too frequent vaginal examinations and especially following the introduction of the hand into the uterus to secure version or an artificial delivery. Sometimes the accident is merely transitory, but if some considerable quantity of air has found an entrance symptoms of serious pulmonary embolism appear and the patient succumbs.

Finally, death come as the result of causes of which it will suffice us to mention hemoptysis and hematemesis, urethral and meningeal haemorrhage, with or without eclampsias, pleuritic effusions, etc., etc.

We call especial attention to cases of death by inhibition. The expert who is to make a report on a case of this kind should know that the accident may occur independently of any fault on the part of the physician or the midwife.—(Translated from the *Montréal Médical*.)

Ages at which Diseases Prove Fatal.—The *Insurance Press* contributes the following, of interest to the profession: Deaths from consumption are divided by ages: Under forty-five, 59 per cent.; forty-five to sixty, 29 per cent.; above sixty, 12 per cent. Thirty per cent. of the deaths from other general diseases, small-pox, measles, diphtheria, erysipelas, cancer, diabetes, etc. (which cause in the aggregate nearly one-eighth of all deaths), occur under forty-five; 36 per cent. between forty-five and sixty, and 34 per cent. above sixty. Only 12 per cent. of the deaths from apoplexy, softening of the brain, paralysis, etc., occur under forty-five years; 33 per cent. occur between forty-five and sixty; 55 per cent. occur above sixty. Thirty-five per cent. of the deaths from other nervous diseases than appoplexy, paralysis, etc., take place under forty-five; 38 per cent. between forty-five and sixty; 27 per cent. above sixty. Not more than 11 per cent. of the deaths from heart disease occur under forty-five; 33 per cent. between forty-five and sixty; 56 per cent. above sixty. Twenty-nine per cent. of the deaths from pneumonia occur under forty-five; 35 per cent. between forty-five and sixty, and 36 per cent. above sixty. Other respiratory diseases, such as bronchitis, pleurisy, etc., grant a little longer lease of life. From such cases the deaths under forty-five are 24 per cent.; between forty-five and sixty, 30 per cent.; above sixty, 46 per cent. Thirty per cent. of the deaths from some derangement of the digestive system occur under forty; 38 per cent. between forty-five and sixty, and 32 per cent. above sixty. Only sixteen in 100 of the victims of Bright's disease are under forty-five; thirty-seven in 100 die between forty-five and sixty; the remaining 47 per cent. die after completing three score years. Other complaints, classified as genito-urinary, are old-age diseases; 77 per cent. of the deaths from such causes occurring at ages above sixty. Fifty per cent. of the deaths from violent causes occur under forty-five. Human bodies that have been subjected to the wear and tear of three score years or more are most subject to the kind of break-downs that puzzle the doctors. Fully 68 per cent. of the

typhoid fever deaths occur under forty-five; 23 per cent. between forty-five and sixty; the remaining 9 per cent. at higher ages.

The Social Evil.—Editorially, *American Medicine* has this to say: The Committee of Fifteen recommended prevention of tenement overcrowding; more elevating forms of amusement; improvement of the material condition of the wage earning class; a better system of moral education; increase of hospital accommodations for the peculiar class of patients; reformatory detention of debauched minors; the recognition of the law that prostitution is a sin instead of a crime; nonsegregation of houses of ill fame; police repression of obtrusive manifestations of prostitution. Good as all these things are or would be, they stimulate a pathetic if not a cynical smile in the judicious. Far from "revolution," this at best is but "reform by rose-water." It is plain that neither by repression, by sanitary or moral regulation, nor by laissezfaire, are we making any head against the ingravescent social and physical disease. In despair the world is theoretically coming to the old, old conclusion to give up the fight. And yet the let-alone policy is so certain to end social order and existence, that something must be done in the necessity of self-preservation. May we hazard one suggestion? Every country has laws against the wilful spreading of disease by those infected. The community has every right to enact such laws as to diseases in which acquirement is without moral stigma. How much more so, then, of diseases the acquirement of which is usually attended with infraction of the most fundamental ethical and statutory laws? How much more so of disease that cling to the sinful or criminal for life, and that are passed on to millions of innocent wives, children and others? It is strange that the world is so stupidly and criminally indifferent to its greatest criminals. Why have the Committee of Fifteen, the repressionists, the regulationists, the moralists, and the laissezfaireists, never suggested the trial of legal punishment of the criminal who wilfully gives another a horrible, lethal, or

worse than lethal disease? It should be an all-sufficing ground for divorce, and no insurance company should be allowed to give a policy to any applicant who has, or has ever had, venereal disease. Marriages of such patients should be interdicted. Forty-one per cent. of all pelvic inflammations in women are pronounced due to supposedly cured male gonorrhœa, and 50 per cent. of all sterility to the husband's gonorrhœa. Why should syphilis and gonorrhœa be omitted from the list of infectious diseases of which the law prescribes notification and punishment for wilful spreading? Surely they are highly contagious and ruinous? Why should the public spare its worst enemies, the breakers of the most primary laws of ethics and pathology?

Your Chance, Young Physician.—Either the examinations for commissions in the medical corps of the army are unusually severe or the young doctors appearing before the boards which have been in session here for several weeks were poorly prepared, for out of a list of 129 candidates but 18 have been accepted and will be appointed assistant surgeons, with the rank of first lieutenant. The surgeon general of the army is greatly surprised and disappointed at the showing of the doctors and almost dispairs of filling the large number of vacancies now existing by the autumn, when the services of a number of young surgeons should be available to relieve those whose terms of duty have expired in the Philippines.

An army examination board has been in session here since last April, passing upon the qualifications of all young doctors who have been authorized to appear, with the result that forty-eight vacancies still remain unfilled, with but few applicants on file to be passed upon. The present situation is most embarrassing to the war department and is unprecedented in the history of the corps. Usually there is not the slightest difficulty in securing excellent material from civil life for the medical corps and generally there have been at least a dozen candidates for every vacancy existing. The

medical corps of the army, in fact has been considered one of the most desirable branches of the service for men just entering from civil life, on account of the rank and pay the new appointee receives.

Next October the army will hold another examination, and meanwhile an effort will be made to secure the attendance of a large number of candidates well qualified for commissions.—(*Philadelphia Record.*)

Good Location for a Physician.—It is said that there is a good opening for a physician at Saline, Mich. We shall take pleasure in furnishing particulars on request from our readers.

Remarkable Resuscitation.—An Associated Press dispatch from Washington says: Supt. Kimball, of the life saving service, has received a report from Capt. Ludlam, of the Hereford Inlet Life Saving station, at Angelsea, N. J., of the remarkable resuscitation of Stanley S. Holmes, a 5-year-old boy, after he had been under water twenty-five minutes.

Capt. Ludlam reported that July 5, during a squall in the harbor Wm. B. Holmes and his child were overturned in the water, and that the little son sank, remaining under water not less than twenty-five minutes before the life saving crew of the Hereford station were able to secure the apparently dead body. Within four hours after the body was removed from the water the child regained consciousness. Supt. Kimball received affidavits from the father of the child, from Miss Margaret Mace, a medical student, and Mary J. Hock, a trained nurse, substantiating to the fullest degree the statements of Capt. Ludlam. The opinion of most of these people is that the child had been under water fully thirty minutes when taken out, and all are certain that the time was not less than twenty-five minutes.

Held Inquest on Mummy.—The *Medical News* says: Our British friends can sometimes do the unconsciously humorous thing to perfection. They have lately been holding an inquest on a Peruvian mummy. But this "crown'r's quest"

was no more funny than the gravity with which the *British Medical Journal* assures its readers that the coroner did right. The British public have finally wakened to the fact that the coroner should be laughed at, and the mummy has been pronounced dead because the coroner "sat on it."

The innocent cause of all the trouble was a Peruvian mummy which some one was sending by express to a museum in Belgium. The unfortunate relic was discovered in a box in a railroad station in Liverpool. It was undoubtedly dead, but the coroner was sent for to certify to the fact. He held an inquest (poor man!), but did not find the cause of death, and now he is being guyed. As he is only a coroner, we have not much sympathy with him. He succeeded, however, in spoiling the mummy; and a law-suit followed, with big damages. We have always maintained that coroners hold too many inquests, and we think they should not be encouraged to include imported mummies among their victims.

Extraordinary Photography.—The *Optician and Photographic Trades Review*, a London publication, contains the following note in a recent issue: One of the most extraordinary claims hitherto advanced in relation to any one of the applied sciences has recently been made upon behalf of the science and art of photography. The reputed winding sheet of Christ, religiously preserved at Turin, has been photographed with the extraordinary result (if we exclude trickery upon the part of certain eminent scientists) that the features of the crucified Deity appear, with almost life-like distinctness. The photographic record in the shroud is attributed to chemical action on the oil and aloes with which it was impregnated, by ammoniacal vapours such as are given off from the sweat, rich in urea, of one dying a lingering and painful death. The imprints of the crown of thorns, of the scourging, wounds caused by the nails and the spear-thrust in the side, are painfully distinct, even the location of drops of coagulated blood being distinguishable. And as tending to exclude the idea of

fraud, it is credibly affirmed that the sacred winding sheet had not been touched since the year 1353. 'Science Siftings' in printing this photograph of Christ, aptly describes this as at once the "newest" and the oldest photograph.

Alcohol Not a Food.—We believe that the consensus of the best medical opinion of to-day is that alcohol, while a valuable medicine in some conditions—and here many would include a limited dietetic value—is not properly a food. It is not what the Germans call a *Nahrungsmittel*, but is a luxury and a perfectly non-essential one to the healthy normal individual. The need of moderation in the use of alcohol and the difficulty in drawing the line between moderation and excess, together with the habit-building tendency, have all to be considered. The worst thing about the present tendency to say a good word for alcohol is the certainty that whatever may be said will be utilized unscrupulously by advocates of the liquor interest. Give them an inch and they will take a mile, and some of our confrères have had good reason to regret this fact. We believe it will be found far safer for medical men to stand on the facts opposing the general use of alcohol than to even qualifiedly advocate its usage, except exclusively as a medicine and under medical prescription. Its cause is not one that requires any fostering by our profession.—(*Jour. Am. Med. Assoc.*)

Canada Does Not Want Them.—The Canadian Government is likely to adopt the procedure of the United States Immigration Department and bar undesirable immigrants from landing at Canadian ports. The House of Commons now has legislation before it amending the Immigration Act, which will empower the Governor-in-Council to prohibit, by order or proclamation, the landing, except for a specified time, and then for medical treatment alone, of all diseased immigrants. The Governments of the United States and Canada should join hands in the matter, so that these undesirable classes of immigrants could be effectually barred from both.—(*Philadelphia Medical Journal.*)

BOOK REVIEWS

A Manual of Instruction in the Principles of Prompt Aid to the Injured, Including a Chapter on Hygiene and the Drill Regulations for the Hospital Corps, U. S. A. Designed for Military and Civil Use. By Alvah H. Doty, M. D., Health Officer of the Port of New York, Late Major and Surgeon, Ninth Regiment, N. G. S. N. Y., late Attending Surgeon to Bellevue Hospital Dispensary, New York. Fourth Edition, Revised and Enlarged. Pages, 293. Size, 4½ x 7 Inches. Price, Cloth, \$1.50. D. Appleton & Co., Publishers, New York and London, 1902.

Since 1889 this book has been read with interest by the civil and military members of the medical profession, who have recognized its good qualities. The manual does not stop with telling what to do in the case of an injured patient, but it goes quite fully into the principles which underlie the treatment. For example, the book begins with a more or less minute description of the bones of man, takes up the subject of joints, ligaments, cartilage, membrane and muscles, treats of the digestive and alimentary apparatus and the respiratory functions briefly, and thus prepares the reader for an intelligent conception of the materials upon which he is to work. The book would in all probability be of little value to the laity, to whom it is not addressed, but it must be of interest and pith to the hospital and ambulance corps of the various military organizations in the several states. Anatomy and physiology are given considerable space, the technical names and terms being supplemented with lay synonyms for the benefit of the ambulance and hospital orderlies.

The text is supplemented, but scarcely embellished with illustrations, many of them taken from old prints, some of which are familiar to us from acquaintance with them in other books on emergency surgery and bandaging. The chapter on bandages and dressings, by the way, is of special interest and may be read with profit. Disinfection comes in for the share of attention which is by right its due and there is a short chapter on medication for the purpose of allaying pain. A chapter on hygiene, with the tables of Dr. Letheby and others, furnishes a valuable basis for calculation of the part of the commissariat of military organizations, and might be read with profit by the quartermaster-general in the state troops.

Nearly a third of the book is devoted to the matter of transportation of the wounded and the manual of tactics for the United States army. Some of this seems superfluous, in view of the official books of tactics issued by the states for the use of the militia.

Mosquito Brigades and How to Organize Them. By Ronald Ross, F. R. C. S., D. P. H., F. R. S., Walter Myers, Lecturer in Tropical Medicine, Liverpool School of Tropical Medicine, Major, Indian Service, Retired. Pages, 100. Size, 8¼ x 5½ Inches. Price, Cloth, 90 cents, Net. Longmans, Green & Co., Publishers, New York.

Enthusiasm is the key-note of the scientific gentleman who has written this certainly entertaining and in a way valuable book. The pages contain a number of useful and practical hints on the best means of protection against the bite of the mosquito, especially in the tropics, where the insect is held responsible for the inoculation of human beings with diseases like malarial fever, yellow fever

and elephantiasis. The scheme of preventive treatment outlined, however, does not narrow itself to tropical regions, but to any region in which mosquitos are plentiful. And this makes the book of special interest to this country at present, since the recent heavy rains have formed numerous breeding places for the little pests. The author writes like a man who has a deep interest in his subject, and, moreover, like one who has met with gratifying success in the result of his plans when they have been carried out.

His style is quite charming, a firm faith in the result of his ideas being linked to an unusually well-developed sense of humor. Maj. Ross believes that the question of the control of mosquito propagation is one that can be readily solved with a little persistence and a cheerful indifference to public opinion. The need of the latter will at once become apparent to anyone who has ever undertaken to carry out some reform in sanitation or hygiene among people whose real ignorance prevented them from appreciating the fact that a reform was necessary. He lays down carefully considered plans of a campaign of extermination, and gives the most practical kind of suggestions as to how the work is to be carried out. Readers of his little book must of course remember that he has not undertaken this sort of work in America, but the general principles outlined should apply as well here as they do on the west coast of Africa.

People living in communities which are infested with the agile mosquito should by all means read this little book. It will not only serve to hold their interest while it is being read, but will also furnish them with material directions for overcoming what has assumed the proportions of a pest in many portions of this country.

Diseases of the Eye. A Hand-Book of Ophthalmic Practice for Students and Practitioners. By G. E. de Schweinitz, A. M., M. D., Professor of Ophthalmology in the Jefferson Medical College; Professor of Diseases of the Eye in the Philadelphia Polyclinic; Ophthalmic Surgeon to the Philadelphia Hospital; Ophthalmologist to the Orthopædic Hospital and Infirmary for Nervous Diseases. With 255 Illustrations and Two Chromo-Lithographic Plates. Third Edition, Thoroughly Revised. Pages, 671. Size, 9 x 5½ Inches. Price, Cloth, \$4.00 Net. W. B. Saunders, Publisher, 925 Walnut St., Philadelphia, Pa.

Inside of seven years, this authoritative text-book has passed into its third edition, each successive publication being an improvement on the one preceding it in point of quantity of subject matter and illustration. De Schweinitz has had a large and varied experience as teacher and as a practicing specialist, so that he is undoubtedly well equipped for the work he has done so well. He goes straight to the point and what he has to say, while pithy and without undue use of too many words, is yet sufficiently detailed to give the student reader an excellent general idea of the subject immediately under consideration. The close writing of the text, reinforced by a number of illustrations that really illustrate, serves to point the way with clearness; and a careful study of this standard work will give the reader a stable idea of the diseases of the eye and the treatment necessary for their relief and cure.

The third edition, in addition to containing material improvements in the writing of several portions of the second edition—notably the chapter on operations—contains a number of new subjects, treated for the first time. There are special paragraphs on the following

subjects: Favus of the Eyelids, Blepharochalasis, Koch-Weeks' Bacillus Conjunctivitis (Acute Contagious Conjunctivitis), Pneumococcus Conjunctivitis, Diplo-bacillus Conjunctivitis (Subacute Conjunctivitis), Parinaud's Conjunctivitis, Pneumococcus Infection of the Cornea, Schizomycetal Infection of the Cornea, Oyster Shuckers' Keratitis, Fugacious Periodic Episcleritis, Röntgen Rays for Detecting Foreign Bodies in the Vitreous, Retinitis Striata, Hereditary Optic-nerve Atrophy, Eucain and Holocain. A number of new illustrations have been given a place in this edition.

After an illustrated chapter of considerations on general optical principles, the author logically takes up methods of external examination in general, afterwards passing on to the more particular methods of examination employed by the specialist. The subject of refraction, normal and abnormal, is considered, and then de Schweinitz goes on to the discussion of the numerous diseases to which the eye is liable. Examination, diagnosis, treatment, in logical and clear order, are taken up in turn, and the work concludes with a chapter on operations, which is an able exposition of the methods and the operative technique used in delicate work on the eyes. A number of especially good illustrations accompany this portion of the text.

An appendix contains directions and suggestions for the use of the ophthalmometer, rules for measuring the corneal astigmatism with this treatment, and the use of the tropometer.

A Text-Book of Materia Medica, Therapeutics and Pharmacology. By George Frank Butler, Ph. G., M. D., Professor of Materia Medica and Clinical Medicine in the College of Physicians and Surgeons, Medical Department of the

University of Illinois; Professor of General Medicine and Diseases of the Digestive System, Chicago Clinical School; Attending Physician to Cook County Hospital; Member of the American Medical Association, Illinois State Medical Society, Chicago Medical Society, Chicago Pathological Society, and Chicago Society of Internal Medicine; Fellow of the Chicago Academy of Medicine, Etc. Third Edition, Thoroughly Revised. Pages, 826. Size, 9 x 5½ Inches. Price, Cloth, \$4.00 Net. W. B. Saunders & Co., Publishers, Philadelphia, Pa.

This is a large subject, but the fact that Dr. Butler's work has passed into its third edition within the space of three years is sufficient evidence that the majority of his readers have been satisfied with the manner in which he has handled it. The present form of the book comprises as nearly as possible modern knowledge of the subject of the nature and action of drugs in the armament of physicians for the rational treatment of disease. The volume's contents are especially addressed to students of medicine and the author's object has been to make the book suitable not only for class-room work, but for use as a permanent reference book as well. This object appears to have been accomplished.

The drugs mentioned are arranged with reference to their synthetic classification, based on therapeutic affinities, and this arrangement was settled upon as a result of the author's own experience in the class-room and in practice. The work opens with a consideration of pharmacology and general therapeutics, followed by a careful account of the various pharmaceutical preparations, giving Latin and English names for each. Under the head of "Disease Medicines" Dr. Butler treats of the restoratives, alternatives and antiseptics, separating each di-

vision into its groups. For example, under restoratives he mentions at length the digestants, fats and oils, mineral acids, vegetable acids, alkalies and so on. Under "Symptom Medicines," he takes up the antispasmodics, the antipyretics, the hypnotics, the narcotics, the motor excitants and the motor depressants, and so forth. Then there is a short chapter on topical remedies—the caustics, the vesicants, the rubifacients and the emollients, and the work concludes with a full description of prescriptions used by the physician. There is an excellent clinical index for the convenience of the reader.

This logical arrangement has a double advantage; it enables the student to place the remedies in their proper relation to each other in his mind, and it enables the seeker for a given drug to find it readily, making the book valuable both for study and for reference.

A table of the untoward effects of drugs, summarized from the result of the findings of Drs. W. L. Baum and J. G. Kießnan, of Chicago, Lewin, of Berlin, Germany, and Mulheron, of Detroit, is published in this book. In this the general and the specific effects of about 100 drugs are considered. The few illustrations are well chosen and carefully produced, and the whole volume gives other evidences of careful publishing. It is a book of much value to the student and to the practitioner as well.

A Text-Book of Diseases of Women. By Charles B. Penrose, M. D., Ph. B., Professor of Gynecology in the University of Pennsylvania; Surgeon to the Gyncean Hospital, Philadelphia. Illustrated. Third Edition, Revised. Pages, 518. Size, 5½ x 9 inches. Price, \$3.75 net. W. B. Saunders & Co., Publishers, 925 Walnut St., Philadelphia, Pa.

It is for the medical student that this book is primarily written and Dr. Penrose has brought to bear all the years of experience as a teacher which he has enjoyed. Modern gynecology and nothing else is presented in the pages of this book, the author having purposely omitted much of the general information touching on gynecology which is contained in other text-books on the subject.

The subject matter is arranged with an eye to the convenience of the student who is to profit by it, and the simplicity of grouping affords easy access to the practitioner who may care to read a standard work on a specialty in medicine which is followed by so many capable physicians. The general causes of the diseases of women are first taken up and after a description of the various methods of examination with a view to diagnosis, the numerous diseases of woman-kind are taken up for discussion. The general text is greatly aided by the presence of a large number of illustrations, many of them taken from photographs and wash drawings.

Retroversion and retroflexion of the uterus very properly receive a good deal of attention at the hands of the author. He has furnished the reader not only with a sufficiently detailed text to make himself readily understood, but the illustrations on this subject are of value as well.

Diseases of the cervix are treated at length, including lacerations, cervical catarrh and cancer of the cervix. Diseases of the uterus, ovaries and tubes are taken up in order, gonorrhœa in women is gone into, and there is an excellent chapter on the technique of gynecological operations. This is indeed one of the most closely and carefully written portions of the book, as Dr. Penrose is a man keenly alive to the exigencies which arise in operations of this class. He is a firm

believer in following closely the proper methods in operation and he has given the student some valuable suggestions which it will be well for the latter to follow out. The author begins at the beginning of preparation of the patient and lays down some excellent methods of procedure along the general lines of surgical precautions, together with carefully selected instructions as to the best manner of carrying out the operation itself. The volume concludes with a chapter on the special technique of operations, laying especial emphasis on those involving the uterus and its appendages.

It is possible in his description of the operative technique involved in operations on women that our author is at his best. A clinician of experience and standing, and a man who is thoroughly in sympathy with his work, his directions can hardly fail to have an importance that should be appreciated by the student who turns to a text-book to supplement the knowledge that he has already gained in the class-room and the amphitheatre. The illustrations, as has been said, are of valuable assistance, and are for the most part well chosen, although a few old-timers appear.

The Treatment of Fractures. By Charles Locke Scudder, M. D. Surgeon to the Massachusetts General Hospital, Out-Patient Department; Assistant in Clinical and Operative Surgery in the Harvard Medical School. Assisted by Frederic J. Cotton, M. D. With 585 Illustrations. Pages, 425. Size, 6 x 9½ inches. Price, Polished Buckram, \$4.50 net; Half Morocco, \$5.50 net. W. B. Saunders, Publisher, 925 Walnut St., Philadelphia, Pa.

Our author has started at the top of the human frame and gradually worked his way down, beginning with the frac-

tures observed in the skull and closing his book with a description of the treatment to be followed in cases of fractures of the lower limbs. He has tabulated and arranged the result of an experience and an observation covering an extended period and his skill in placing topics before students has stood him in good stead in so far as the matter of simplicity goes. The text is well illustrated with numerous representations of fractures taken from life, with several valuable diagrams of splints and bandages. Reproductions in half-tone of the results of photography with the Roentgen ray are a valuable adjunct to the book, especially now that so many of the profession are making such frequent use of the fluoroscope in their location and repair of fractures. An interesting chapter on the X-ray in its relation to the treatment of fractures is written by Dr. E. A. Codman.

Special apparatus receives its due share of attention and many specially devised splints and bandages are shown in illustration, while the standard apparatus is not forgotten. Considerable mention is made of the ambulatory treatment of fractures, which Dr. Scudder agrees with Krause in believing to be of value when the fracture is located well up on the leg; but he does not regard it wholly with favor as a general method of treatment.

The matter of examination of a patient with a view to diagnosis is most carefully gone into and the author lays great stress upon the necessity for care in this important matter. Illustrations reproduced from photographs serve to show clearly the best methods of palpation and the text at the same time follows closely the subject matter in hand. The same statements apply to the no less important matter of measuring limbs after trauma, that a useful member may result from the treatment to which it has been sub-

jected. Here again the photographs are of great assistance, particularly to the student. Care in after-treatment is very properly advocated and the numerous dangers which lurk in a convalescent limb are pointed out to the physician who reads.

Bandaging injured portions of the body in such a manner as to secure the proper support and at the same time admit of as ready an examination as possible, when necessary, often offers no inconsiderable trouble to the physician, however skilled he may be in the matter of fracture treatment. The varied example presented in the book should prove of value to him and may be the means of helping him out of a tight place. Several interesting examples of recovery to usefulness in cases of serious fracture and displacement are recorded and the matter of treatment is carefully given, step by step, from the first examination to the time of the patient's discharge from the physician's care. There is much of solid use in the book.

Atlas and Epitome of Operative Surgery.
By Dr. Otto Zuckerandl, Privat-Docent in the University of Vienna. Authorized Translation from the German. Edited by J. Chalmers DaCosta, M. D., Clinical Professor of Surgery in Jefferson Medical College, Philadelphia; Surgeon to the Philadelphia Hospital, Etc. With 24 Colored Plates and 217 Illustrations in the Text. Pages, 385. Size, $4\frac{3}{4} \times 7\frac{1}{4}$ inches. Price, 3.00 net. W. B. Saunders & Co., Publishers, Philadelphia.

This is one of Saunders' medical handatlases, translated from the well known Lehmann Medicinische Handatlanten, and admirably covers the ground which it sets out to. Zuckerandl is of course a well known teacher and writer and like

most other Germans he speaks authoritatively on the subjects with which he is familiar. The rules of modern surgical practice are clearly laid before the reader, whether that reader be the student at the cadaver, or the surgeon at the operating table. A portion of this is no doubt due to the translator, who has brought to a usually difficult and somewhat thankless task much of his own knowledge, so that he reflects rather the meaning of Zuckerandl's words than the words themselves. Some few explanatory notes are added by Dr. DaCosta, but his work along this line has not been burdensome.

There is a double purpose in the book. It aims to describe in detail the more important operations on the cadaver for the benefit of the student, and to give a concise treatment of the several operations that come to the hands of skilled surgeons. With the first purpose in view, our author begins with a description of the most elementary steps in surgery, illustrating the various instruments and the different ways of holding them; then he goes on to describe division and subsequent revision of the tissues, tracing each step with the most painstaking care. A close reader can scarcely fail to have a good grasp of many of the most important and elementary procedures in surgical practice after studying this comparatively small book attentively.

The text is embellished with a number of illustrations, among them being several clear and very good colored plates printed in colors, which serve an excellent purpose. A number of half-tones serve also to light the way of the young surgeon who wants to freshen his mind before attempting an operation. Numerous methods of operation, called for by varying conditions present, are set down, and there are enough explanations with each one to enable the reader to get a

good general grasp of the whole subject, together with some very useful detailed knowledge in special cases. The matter of the different sutures comes in for much discussion, as it deserves to, and the why and wherefore in every case is made manifest. It is a good book and a valuable one to men in all stages of medical knowledge. The older operator is likely to find something new in its pages, while the younger man may read with confidence what it has to say on the subject of general operative surgery.

A Text-Book of Embryology for Students of Medicine. By John Clement Heisler, M. D., Professor of Anatomy in the Medico-Chirurgical College, Philadelphia. With 190 Illustrations, 26 of them in Colors. Pages, 390. Size, 5½ x 9 inches. Price, \$2.50 net. W. B. Saunders, Publisher, 925 Walnut St., Philadelphia, Pa.

Since it is true that the medical profession is interested in human life and since human life begins with the embryo, it should follow that the profession would be interested in this book of Heisler. He has prepared a text-book for the use of students primarily that is remarkably complete and concise, two strong points in its favor, and he has arranged the subject matter with reference to the convenience of the reader in finding it rather than on any hit-or-miss plan of his own devising. And he has couched his utterances in language that is remarkably simple and easy of comprehension.

The publisher has ably seconded the author in the production of a fine book. The illustrations form a valuable adjunct to the text, being well designed and well executed. There are enough of them so that they throw much light on the author's words and they are well distributed throughout the body of the

book. Moreover, the paper is good, there are wide margins, and the press-work has been seen to with attention.

Naturally enough a book on embryology concerns itself chiefly with development and the developments of the different systems in the prospective child are taken up in their logical order, from those of the embryo in the third and fourth week to those of the fetus later on. A valuable tabulation of the differentiations is found at the back of the book, where every step taken is carefully traced out.

There is something of value in every single chapter of the book and the whole work must be regarded as a valuable one. It is a book that might be in the library of many members of the profession with profit to themselves.

The Physician and His Patient; or The Business and Social Relations that Should Exist between Them. By A. E. Lawrence, M. D. 48 Pages, Paper. Press of Jennings & Pye, Cincinnati, Ohio. Published by the Author.

This little volume is a plain talk, without offense, addressed that portion of the laity which happens to be under the care of a physician. It takes a good stand in that it states that the patient is entitled to the thoughtful, serious and painstaking care of a physician whom he calls to attend him; and it takes strongly defensible ground when it says that the physician is entitled to receive an emolument from the patient he has treated. The question of the rights of patient and physician is treated broadly, with large understanding and many pointed truths. And many of the laity would have a keener appreciation of their doctor's rights if they were made acquainted with the contents of this little paper-covered book. It stands firm for ethics and for a just honorarium—two things which

every good physician should think seriously about. There is meat in what is said and it should prove of interest, not only for the doctor's personal reading, but for the information of his patients as well. It would be a good book to leave with some of the latter for their careful study.

Medical Book News. A Bi-Monthly Publication Devoted to the Literature of Medicine and the Allied Sciences. 12 Pages, Paper. P. Blakiston's Son & Co., Publishers, 1012 Walnut St., Philadelphia, Pa.

Blakiston has just issued the first number of the initial volume of this little pamphlet, which is designed to be a sort of epitome of useful knowledge concerning medical and kindred publications. Its scope will include descriptions of important books, reviews from medical papers, news items, lists of the most recent American and English books of all publishers, lists of new books on special subjects and announcements of forthcoming books. The booklet has no subscription price, but is sent to all who are interested. The first number is attractively bound and printed; the numbers taken together should prove an interesting and instructive catalogue of medical publications.

Off for 'Frisco.—For this gathering in San Francisco in August next excursion tickets will be sold via the Chicago, Milwaukee & St. Paul Ry. from Chicago to San Francisco or Los Angeles for \$50 for the round trip with final return limit September 30.

The "Chicago, Milwaukee & St. Paul" railway is the Short Line between Chicago and Omaha. Two through trains daily in each direction with the best Sleeping Car and Dining Car Service, and all regular travelers know and appreciate the merits of the Chicago, Milwaukee & St. Paul Railway's Short Line between the East and the West.

Time tables, maps and information furnished on application to Robt. C. Jones, Michigan Passenger Agent, 32 Campus Martius, Detroit, Mich.

Thunder Stealing.—Dr. George Thomas Palmer, publisher of the *Chicago Clinic*, writes that someone has been plagiarizing his writing by reprinting a poem of his which was published on page 490 of the July Journal. The verses were credited to "S. P. T." in perfectly good faith by us. Dr. Palmer suggests that the initials stand for "Stole Palmer's Thunder," and is willing to let the matter go at that. So are we, for the average publisher is never certain that due credit is given. He must take his chances and frankly acknowledge his mistakes, as we do herewith.

When the Doctor is Sick.—Dr. George Thomas Palmer writes the following true verses in the *Chicago Clinic*:

In my many years of labor
I have tried, most every stunt;
Cured the yells of babes with colic,
Soothed the toper's gouty grunt;
Charmed the snakes of wily boozers,
Quelled the nerve storms of the dames,
Shot with pills at strange diseases
When I didn't know their names.

I have patched the voice of singers,
And have robbed the sneeze from grippe,
Knocked the chills clear out of ague,
Cured the small-pox every trip;
But one stunt has always floored me,
Always will—this little trick—
Giving pills and soft emulsions
To the doctor when he's sick.

You have seen his sweet persuasion,
Heard him swear "it tasted good,"
Heard him say: "This will not hurt you"
(Then you'd vacate if you could);
Heard him swear he had no patience
With a man who couldn't take
Any sort of pill or nostrum
For his pain or for his ache.

Heard him tell you not to grumble—
"Grumbling does no good," says he,
As he rolls a nasty powder
In a pap on his knee.

Then you ought to see the doctor
When he's laid up for repairs,
Ought to hear the old boy growling,
Ought to hear the doctor swear;
And you ought to see the nurses
When the time comes for his dope—
If you had their job before you,
You would bid farewell to hope.

L'ENVOI—

You may be amazing clever,
Up to almost every trick,
But you're faded when it comes to
Dosing doctors when they're sick.

DETROIT MEDICAL JOURNAL

ORIGINAL ARTICLES

THE MEDICAL SIDE OF GYNECOLOGY.*

BY EDWARD W. JENKS, M. D.,
Detroit, Mich.

I have been prompted to write a brief paper on the subject announced, and dealing only with generalities, by the remark made to me by one of our distinguished Fellows, that "there is no such a thing as medical gynecology."

We all know that since the organization of this Society the methods of the gynecologist have changed, great advances in surgery have been made, new surgical operations have been devised, and the mortality succeeding surgical procedures greatly diminished. The general surgeon has invaded the field of the gynecologist, while the gynecologic surgeon, in turn, not infrequently operates upon anything operable, be the patient male or female.

The many prolonged lives consequent upon the evolution of gynecologic surgery is a matter for congratulation and deserving of the highest commendation, not alone by the entire medical profes-

sion, but by altruists also. The brilliant achievements of accomplished abdominal and gynecologic surgeons have had an additional effect in bringing into existence many surgical and gynecological neophytes who attempt the kind of professional work that only masters are equipped for. Often these men acquire an excellent surgical technique, but wholly ignore valuable and ancient landmarks; they are men to whom prognosis is a lost art and diagnosis is only determined after a use of the knife. A few years ago mutilation of women by surgeons of this class in every hamlet and country crossroads was of common occurrence. The *éclat* of surgical operations put conservatism in the background; recoveries from operation were counted as cures, but the many neurasthenic, insane, and utterly miserable women, needlessly or too much operated upon, even yet continue to afford abundance of evidence that recovery and cure are not synonymous terms. The results of such gynecologic surgery in full swing a decade ago are still apparent, as there seems to have grown up, in consequence, what may be termed a new school of gyne-

*Read at the meeting of the American Gynecological Society in Atlantic City, 1902.

From American Journal of Obstetrics.)

cologists, who look upon the literature of the past as rubbish, all of its pathology faulty, and its teachings pernicious. To them libraries are no longer of value, and only recent publications of surgical exploits, damp from the printer's ink, are worthy of consideration. *Materia medica* comes in for more than its share of ridicule by this newest school, they seeming to forget that a thorough knowledge of the treatment of the diseases of women, which implies a certain degree of familiarity with *materia medica*, is an essential prerequisite for the thoroughly prepared gynecologist.

The distinction of making many surgical operations often brings reputation and pecuniary compensation out of all proportion to the rewards of patient labor in the field of pathology and therapeutics. For these reasons it is not wholly surprising that medical gynecology has failed to be an attraction to many, for genius has exhibited its triumphs more frequently in surgical gynecology.

It is true that in the past, in private practice and in the medical wards of our hospitals, many gynecologic cases have been treated by medicine only, and have died, that if met with at the present time would have been treated and cured by surgical means. It is also true that many gynecologic operations are successfully made by general surgeons, but that does not make them accomplished gynecologists.

It may be of some interest, as bearing upon this point, to note that one of our Fellows has had made for him quite recently an investigation of the results of a year's work of surgical gynecology in nine large hospitals, and that the mortality of the cases in the hands of general surgeons was 6 per cent, while in the hands of gynecologists it was 3.8 per cent.

There is a medical side to gynecology that cannot be ignored, for a special training, together with a thorough

knowledge of general medicine, are essential prerequisites for the making of the ideal gynecologist. At least one-half of the women seeking for advice and relief for disorders peculiar to their sex are suffering from some deranged condition of the eliminative organs, as shown by constipation or defective elimination of solids in the urine. Even where there are lesions in the pelvic organs, no relief from distressing symptoms can be secured until underlying constitutional causes of pain and general poor health are first ascertained and removed. The rheumatic and gouty diatheses are responsible for many of the uncomfortable and distressing symptoms, with or without pathological changes within the pelvis, for which the aid of the gynecologist is sought. There are many derangements of the system which closely resemble diseases of the pelvic organs. For instance, pain in the back, the commonest complaint of women, may be due to coccygodynia, or myalgia, or chronic malarial toxemia, or other constitutional causes pain in the abdomen, sometimes attributed to the ovaries, may be due to habitual constipation or to an atonic condition of the large intestine.

We recognize the fact that chronic constipation, with the consequent pressure upon the left ovary, is one of the most frequent conditions giving rise to ovarian pain with many reflex symptoms, such as sympathetic sciatica, so closely resembling ovarian disease as sometimes to be thus designated.

Upon another point it has recently been aptly said: "No gynecologist of experience is likely to undervalue the retroactive effect of the nervous and mental symptoms upon the one hand with the pelvic organs upon the other, but such a man will always realize the rarity with which neurasthenia, or similar affections of pelvic organs, are disassociated from distinct pelvic symptoms."

Hepatic disorders may frequently be mistaken for uterine, while the reverse holds true. Other constitutional diseases coming under the care of the gynecologist because the subjects are women, with symptoms indicating some pathological changes in the pelvic organs, require no surgical interference, but medicinal treatment only. Other conditions frequently arise where a clear and definite acquaintance with the diseases of the chest and a practical knowledge of auscultation and percussion are essential to a complete diagnosis. Many of the disorders of menstruation can be best treated medicinally—and that they are common no one can gainsay.

It is not my purpose in this paper to attempt to specify diseases or conditions for which medical treatment rather than surgical promises the best results.

I am convinced that some of the medical schools are somewhat responsible for the neglect of medical gynecology. Surgical technique is taught in all its refinements, but symptomatology, differential diagnosis, and the treatment of diseases of women amenable to medicinal remedies cannot receive adequate attention in the brief time devoted to them, if one can judge by results. I have myself known of several ordinary practitioners of medicine tiring of the routine of general practice, to spend a few weeks taking a post-graduate course of instruction, and then announce themselves as gynecologists. They had the best of teachers, from whom they acquired a knowledge of technique and surgical operations they did not before possess, but otherwise seemed to have acquired no new knowledge. The treatment of disease by other means than surgical seemed to possess no attraction for them and was of minor importance. The glamor of gynecologic surgery had obscured the commonplace, but equally important, study of gynecologic medicine.

The experience of all gynecologists

who are not interested solely in operating will bear out the assertion that the first essential qualification to successful practice in this specialty is a wide and extensive knowledge of disease, but more especially chronic constitutional disorders.

It is true that gynecology is, in part, surgical, and without surgery it would be relegated to the position it occupied three-fourths of a century ago. Surgical procedures are in many ways more satisfactory than other methods of treating disease, by reason of the brilliancy of execution and the more speedy certainty of results—to say nothing of higher remuneration. But in all candor may it not be asked, "Are not surgical matters being cultivated to the exclusion of medical?" Pathology, symptomatology, diagnosis, prognosis, together with clear and definite ideas of the physiological action, range of application, and the expected results of medicinal remedies prescribed, are as essential to the gynecologist as is dexterity in surgical operations.

Mill, in an address to the University of St. Andrew some years ago, said: "It is the utmost limit of human acquirement to combine a minute knowledge of one or a few things with a general knowledge of many." This general knowledge of medicine and surgery, and the application of it in his special work, makes the accomplished and skillful gynecologist.

"The future of gynecology," very aptly says Dr. Reynolds in his recent address to the Maine Medical Association, "lies in the careful, thorough, and scientific study of every agency which bears upon the pelvic organs of women, and of all the agencies which may be employed for the relief of pelvic disease, medicinal, hygienic, and psychological, as well as the merely surgical."

There are, for obvious reasons, those whose entire time is absorbed by operative work, and who, by reason of their surgical skill, add to the glory of gynecologic surgery; of such men it is unbe-

coming to say a word in derogation, but everything that is possible in commendation. The aim of this brief and imperfect paper is not to criticise, but it is a plea for the medical side of gynecology and that it be not relegated to obscurity in our zeal to advance gynecologic surgery. I wish also to enter my protest against so many calling themselves gynecologists who plough only in one furrow of the field of gynecology, while the field itself is only a part of the great domain of medicine and surgery.

It seems to me proper in this connection to say a few words concerning the function of this Society in equalizing, if it may be so termed, the practice of gynecology. The transactions of this Society are not for its Fellows only; its utterances are authoritative, for within its fellowship, from its organization to the present time, American gynecology has had its best representatives. Their influence is educational and far-reaching in moulding the thoughts and influencing the actions of very many in the profession who aspire to perfect themselves in practical gynecology.

As pertinent to my theme, I conclude by quoting from the address of one of our honored Presidents, who during his lifetime was distinguished alike for his skill as an operator and the profundity of his knowledge in every department of medicine:

"This Society, as the name in its broadest sense implies, comprehends all that pertains to obstetrics and the diseases peculiar to women, and hence have to deal with the most complex structures and functions manifested in the universe. It follows, therefore, that, while a thorough knowledge of the special subject is an absolute necessity, a certain familiarity with all collateral branches of medicine and surgery is highly essential to the accomplishment of the ends and aims of all who claim fellowship here. If a man devotes his whole time to the prac-

tice of one branch of medicine or surgery, he should not expect to be excused if he lacks a general knowledge of all the great principles of the science of medicine. On the contrary, the one is required as a basis for the other."²

84 Lafayette Avenue.

Street Cars and Germs.—While the average adult should inspire 396 cubic inches of fresh air a minute, this is impossible in the street cars of to-day. A New York sanitary engineer found as much as 26.2 parts of carbonic acid gas per 10,000 volumes of air in the trolley cars in New York City. This is to some extent due to insufficient heating of the cars, the windows being in winter necessarily tightly shut. The cocoanut husk mats on the floors of the cars have been examined, single fibers 1½ inches long holding from 3,000,000 to 4,000,000 bacteria. And yet this air compares favorably with that found on many railroads. In the Mont Cenis Tunnel the air contains 107 parts of carbonic acid; in cars in the Mersey Tunnel in England, 26.4; in an electric car in the new Boston subway, 24.97; and in the Metropolitan Railway Tunnel in London, 98.4 parts per 10,000 volumes.—(*Philadelphia Medical Journal*.)

Initiation.—Apothecary (to new helper) "And this is aqua destillata. That's what we give to patients in very serious cases—you know, when we can't just make out what the prescription is."—(*Fliegende Blaetter*.)

No Pad for Movable Kidney.—Treatment of movable kidney is essentially surgical. In times past the bandage and kidney pad was much worn, but since the advancement in surgical technique these means have been discarded. At best they did no good, and at times actual harm came from the pressure over the kidney. Menge reports albumen and blood in the urine of fifteen persons wearing the pad whose urine was normal before putting it on.—(Dr. T. C. Witherspoon, in *Inter-state Medical Journal*.)

² Alexander J. C. Skene, Presidential Address, 1887.

CONSERVATIVE SURGERY.*

BY CHARLES W. HITCHCOCK, M. D.

Analogous to the victories of Peace are the triumphs of conservative surgery. Too often are the specimens exhibited to our societies demonstrations of how many important organs the human being may do without and still "live to tell the tale." Constructive is always better than destructive surgery and our mission as conservators of all that can be made useful is too often lost sight of. The easier and straighter path is frequently taken and every diseased or mutilated part unhesitatingly lopped off. Further bother is thus saved to the lazy surgeon.

It is not two years since, before the Medical Library Association, one of the reasons justifying an hysterectomy was given—"that the organ might not again become flexed." The case which I have to show you well repays a little conscientious effort on the conservative side.

On January 8, 1901, this boy, Jacob M., aged 15, in good health, brought his left hand into contract with a band-saw so as to receive on its dorsal aspect a deep lacero-incised wound, which severed the superficial tissues, the four extensor tendons and the four metacarpal bones, just back of their distal extremities, opening into the metacarpo-phalangeal articulation of the index finger. Fortunately, the palmar arches were not wounded, nor was the nerve supply of the fingers (entering through the deep tissues on the palmar side) destroyed.

The bones were somewhat comminuted, as is common in cases of saw-wounds; but, desiring to have organized all the bone possible, I removed none of the small pieces. Some of these afterwards broke down and were discharged as a thin brown pus after a few days, preventing union by first intention on the part of the superficial tissues, and

necessitating the removal of two or three sutures. The hand was dressed and kept upon a palmar splint, which was discarded after six weeks. Approximation of the severed ends of the extensor tendons was nicely made and the apposition secured with cat-gut sutures.

Recovery was prompt and satisfactory and the boy has a useful hand. Not long ago, such an injured member would have been unhesitatingly amputated and I fear that in some quarters, even to-day, this would have been thought the shorter and better plan.

The following points, it seems to me, are worthy of note:

1. The evident good union of the sawed bones, in spite of the considerable comminution.

2. The slight impairment of the metacarpo-phalangeal articulations, although the fracture was very near these joints and one involved the joint.

3. The good union of the extensor tendons (which were not cleanly cut through, but lacerated more or less), as evidenced by the excellent restoration of the extensor function. And

4. The saving of a useful hand, after an injury so severe as to make such a possibility somewhat problematical. The boy was ready for work eight weeks and one day after the injury was received.

The evident moral is this: That no surgeon is justified in destroying that which there is any possibility of saving and making of good use to his patient.

270 Woodward Avenue.

At the Top of the Heap.—"You must abandon all business cares for the future," says the physician. "But I fear that I have not yet accumulated sufficient money," protests the multi-millionaire. "Sufficient?" repeats the doctor. "Why, my dear sir, you have enough money to pay physicians' fees for the rest of your life."—(*Baltimore American.*)

*Reported to Detroit Medical Society.

AN UNDEVELOPED INDUSTRY.

Now that the co-operative idea in the matter of commercial investments has received such a strong endorsement from the medical profession, let us suggest a new and much needed industry, from which money can be made if it is once properly established and conducted.

There are nearly 125,000 physicians in the United States and Canada, and hence a large demand for surgical instruments. Still, nearly all the so-called instruments are imported from Germany, France and England. The duty levied upon surgical instruments by the government of the United States is 45 per cent ad valorem; this, combined with the approximate cost of transportation, insurance, entry fee, counsellor and broker's fees; amounts to at least 5 per cent more, which brings the tariff up to fully 50 per cent. This would seem to give home industry a large advantage over foreign manufacturers and ought to afford sufficient inducement for home capital to start an industry of this kind here. Such an establishment, combined with American inventive genius and American methods of manufacture on a large scale, with our advanced ideas in using machinery instead of hand labor, ought to be a success and the proposition in general is a most attractive one.

While it is true that many of the finer surgical instruments must of necessity receive more or less manipulation by hand, a large proportion can be made by the new methods of drop-forging and stamping, comparatively little hand-labor being necessary. We know of no industry so important, and with such a growing demand for its products, which is not already catalogued among the business enterprises of the United States and Canada. Other products used by the medical profession, such as surgical dressings, medicinal preparations and drugs, are manufactured in this country and exported on a large scale. America leads the world in the manufacture of fine medi-

cial preparations, tablets, pills and so on, and supplies the market not only with the prepared products manufactured by our improved methods, but also with the machinery, invented and designed in America, with which the manufacturing is done. The home market alone would offer sufficient inducement for the establishment of a surgical instrument manufacturing plant, to say nothing of the number of instruments so manufactured that could be exported from America, if made here on the same lines as are other products used by the medical profession.

It is a well established fact that the hospitals and sanitaria in America are much better equipped than are foreign institutions. They are modern, up-to-date, aseptic, and show the effects of a much larger sum of money than is the case with institutions abroad. Such is the verdict of every progressive physician who seeks to increase his knowledge by travel and it shows that the field for the establishment of an industry such as we have mentioned is much better here than it is in foreign countries. The lack of skilled operatives has been a difficulty in the way of manufacturing hospital equipment in this country, as the home of these men is chiefly in Germany, where they buy their forgings from factories, finish the goods in their own homes and then re-sell them to brokers and exporters.

Important changes have taken place in the methods of manufacture of these goods which would enable a well-equipped concern to manufacture them by modern means, drop-forging and stamping all brass goods, thereby largely doing away with the necessity for skilled labor and producing a better product at one-half the price it would take to manufacture it by hand. It is along these lines that the industry must be inaugurated in this country.

Such goods as the Sims speculum, the Graves speculum and many other of the

simpler instruments, have heretofore been made from castings. For such goods, moulds are made of the best steel and the instruments are pressed or stamped into form. By this means, waste and imperfect instruments are eliminated and goods are produced which are much more beautifully finished, besides being lighter and stronger than those made by any other method. When the Graves speculum was first put on the market, physicians paid as high as eight and ten dollars for it and the dealers made only a dealer's profit. To-day these goods are sold for \$1.50. They contain only one-half as much material as was found in the old form, and at the same time are double the strength; still a margin is left for the dealer. But goods manufactured on this plan require the original outlay of large sums of money and American enterprise has as yet apparently not seen fit to make large investments in this direction. The future must bring about the establishment of a modern plant, the expense consisting chiefly in outlay for the dies and tools used in this method of manufacture, which reduces the necessity for skilled labor, so difficult to obtain in this country.

The establishment of such an industry would bring about a uniformity in the quality of surgical instruments, something much to be desired in this country at the present time, as many of the surgical instruments now supplied might well be called "surgical hardware." It may be of interest to note that many of the most practical instruments in the hands of the profession, particularly those pertaining to gynecology, originated in this country. The pioneer in this line of work was, we believe, Dr. J. Marion Sims. American gynecologists have done much to improve the designs and patterns of surgical instruments. Should it ever come to pass that a manufacturing plant for surgical instruments

should be established in this country, it would go far toward eliminating the many modifications of standard forms that now exist, since, when goods are manufactured on a large scale, modifications are impracticable from a commercial point of view.

It may not be inappropriate to state that the American code of medical ethics has always held in disfavor a physician who patents his inventions. This we believe to be wrong, as we now find that a number of surgical instruments placed upon the market in recent years have been patented, not by physicians, but by mechanics who are not restricted by any code whatever, but instead are reaping whatever benefits may have resulted from a physician's ideas. Why should not a physician enjoy the benefits resulting from his own mechanical ingenuity, as well as from the therapeutical superiority of the instrument itself?

Let us cite one instance only, as a conspicuous illustration. A Dr. O'Dwyer, of New York (now dead) invented the so-called O'Dwyer intubation tubes and the instruments for the introduction and extraction of the tubes, an invention which often did away with the necessity of performing tracheotomy. These ideas we believe to have been original with Dr. O'Dwyer and he certainly labored hard for years, spending a great deal of time and money in perfecting his instruments. Fame is highly esteemed by the medical profession, but it is not especially valuable from a monetary stand-point and the fact that outsiders are patenting devices invented by a physician because a physician is not permitted by the code to do so himself seems to us to be a good reason for changing the code in this respect. Instruments that are patented and controlled by certain individuals have some advantages over those that are manufactured by everybody, because anatomically correct pat-

terns and uniformity in quality are assured; and these may be valuable factors in the worth of an instrument.

Caution in Hydrotherapy.—Dr. G. Frank Lydston, in the *Medical News*, has an able article on the use of water in disease, which he sums up as follows:

1. While the injection of large quantities of water in various affections is often of great value, the treatment is sometimes extremely detrimental.

2. The nutritive value of the blood is often impaired by the relative hydremia produced by the ingestion of large quantities of water.

3. Disturbances of the circulatory and nervous systems are frequently produced by it. So-called weak heart, palpitation, nervous irritability, lassitude and exhaustion on slight exertion are among the phenomena that may result.

4. Serious digestive disturbance, involving impairment of the secretion and composition of the gastro-intestinal juices, and gastromotor insufficiency may be produced by the ingestion of water in large quantities.

5. Edema and anasarca, while often relieved by the free ingestion of water under favorable circumstances, are not infrequently enhanced by it.

6. Renal water habit may develop, by virtue of which the kidney becomes permanently sluggish unless it receives its wonted stimulus of large quantities of water.

7. Acute and chronic inflammatory affections of the kidney are sometimes aggravated by giving water in excess simply by overworking the renal organs.

8. Inflammatory affections of the lower portion of the genito-urinary tract are often deleteriously affected by excessive water-drinking through the mechanical disturbance necessitated by the resultant frequent and copious micturition.

Care in Myopia.—The period during which we must observe our myopes ought to be an unlimited one. If a myopia progresses in one year from 4 to 6 D, it is to be considered a rapid case; while another, progressing the same amount in six or eight years, is far more anatomically than one progressing from 4 to 6 D.—(Dr. A. C. H. Friedman, in *Interstate Medical Journal*.)

STATE BOARD REQUIREMENTS.

Recently the Michigan state board of registration in medicine has issued a number of blanks of applications for endorsement by the board to a practitioner who is desirous of receiving a certificate of registration or license to practice medicine and surgery in the state. These are to be filled out by the applicant and the other individuals indicated and sent to Dr. B. D. Harison, secretary of the board. With the blanks goes a printed page, which sets forth the following qualifications as a basis for the reciprocal exchange of certificates under Section three, Subdivision 4, Act No. 237, Mich. Laws 1899:

Qualification No. 1. That a license or certificate of at least one year's date, based upon presentation of a satisfactory medical diploma of graduation, and an examination before a state medical examining board in Specified Branches of Medicine and Surgery, shall be accepted at the discretion of this board in lieu of an examination under Section 3, Subdivision 3, Act No. 237, Mich. Laws 1899, and as a basis upon which a certificate of registration may be issued by the secretary with the endorsement of the president and chairman of the registration committee of this board.

Qualification No. 2. That a license or certificate of qualification issued by a state board of registration or medical examiners, of at least one year's date, based upon presentation of a satisfactory medical diploma, and upon the recommendation of a state board of registration or medical examiners as to the reputability of the applicant, shall be accepted at the discretion of this board in lieu of an examination under Section 3, Subdivision 3, Act No. 237, Mich. Laws 1899, and as a basis upon which a certificate of registration may be issued by the secretary with the endorsement of the president and chairman of the registration committee of this board.

Resolved: That the provisions of qualification No. 1 as above carried shall apply only to those applicants for a Michigan certificate of registration who have obtained their medical diplomas of graduation and state licenses subsequent to July 1st, A. D., 1902, and that the provisions of qualification No. 2 as above carried shall apply only to those applicants who have received their medical diplomas and state licenses previous to July 1st, A. D., 1902.

Resolved: That under qualification No. 1 a satisfactory medical diploma shall be of the following minimum standard, viz:

A certificate of graduation from an approved and reputable high school, academy, college or university with the following minimum requirements:

Group I—English Language. (a) English Grammar. (b) Rhetoric and Composition; Group II—History. (a) History of the American Nation, Johnston's History of the United States, or equivalent text. (b) General History, as presented in Myer's General History, or equivalent text. Greek and Roman History or English History will be accepted as a substitute for General History; Group III—Mathematics. (a) Algebra—Fundamental rules, Fractions, Simple Equations, Involution and Evolution, the Calculus of Radicals and Quadratic Equations, as given in Olney's Complete School Algebra, or Beman and Smith's Elements of Algebra, or some equivalent text. (b) Geometry—Plane Geometry as given in Beman and Smith's Plane and Solid Geometry, or equivalent text. (c) Plane Trigonometry, as given in Wentworth's Trigonometry, or equivalent text; Group IV—Natural Sciences. (a) Physics, as presented in Carhart and Chute's Elements of Physics, or equivalent text. (b) General Biology, or Botany and Zoology, as presented in Sedgwick's and Wilson's General Biology, or Spaulding's Introduction to Botany and

Kingsley's Comparative Zoology. These courses will be accepted only when accompanied by laboratory work. (c) Chemistry, as presented in Freer's Elementary Chemistry, or an equivalent amount of work in Remsen's Introduction to the Study of Chemistry; Group V—Modern Languages. (a) German or French—The applicant must be able to read French or German. This requires for one not born to one of these languages two years of school work; Group VI—Latin. (a) Grammar. (b) Prose Composition. (c) Reading—Four books of Caesar's Gallic War.

Under qualification No. 1 the following minimum standard of medical education is required: Lectures and teaching—

- 30 hours in Electro Therapeutics.
- 160 hours in Physiology.
- 100 hours in Pathology.
- 80 hours in Histology.
- 200 hours in Practice of Medicine.
- 100 hours in Obstetrics.
- 60 hours in Bacteriology.
- 15 hours in Medical Jurisprudence.
- 160 hours in Anatomy.
- 160 hours in Chemistry and Toxicology.
- 130 hours in Therapeutics.
- 30 hours in Hygiene.
- 200 hours in Surgery.
- 30 hours of Gynecology.
- 48 hours in Diseases of the Eye and Ear.
- 100 hours in Pharmacology.

Laboratory work and demonstrations—

- 240 hours in Anatomy.
- 120 hours in Pathology.
- 100 hours in Histology.
- 120 hours in Bacteriology.
- 36 hours in Obstetrics.
- 60 hours in Eye and Ear.
- 180 hours in Physiology.
- 180 hours in Chemistry and Toxicology.
- 200 hours in Surgery.
- 120 hours in Practice.
- 32 hours in Dermatology.
- 120 hours in Gynecology.

The medical course to cover a four

years' course of not less than six months in each year, no two courses to be taken in one year and the beginning of the fourth or final six months of such course shall be dated from October preceding the year of the final examinations for the degree of M. D.

Resolved: That under qualification No. 1 adopted as above, the Specified Branches of Medicine and Surgery in a board's examination shall be as follows: Anatomy, Pathology, Chemistry, Physiology, Therapeutics, Toxicology, Histology, Hygiene, Public Health Laws, Practice of Medicine, Surgery, Obstetrics, Gynecology, Diseases of the Eye and Ear, Bacteriology and Medical Jurisprudence.

Resolved: That the following colleges fulfill the requirements under qualification No. 2, adopted as above:

(a) Those colleges listed as Reputable Medical Colleges in the United States, March 1, 1902, in the Official List of Legally Qualified Physicians, State of Illinois, March, 1902, from page XXV to page XXX, inclusive.

(b) Those colleges listed in the appendix of the 20th Annual Report of the Illinois State Board of Health from page CLXXVI to page CLXXVIII, inclusive, as reputable and legally authorized.

(c) Those extinct colleges in the United States and Canada which are held reputable by this board.

Reciprocity Clause in Michigan Medical Act. Section 3, Subdivision 4.

The applicant shall be registered and given a certificate of registration if he shall present a certified copy or certificate of registration or license which has been issued to said applicant in another state of the Union where the requirements for registration shall be deemed by said board to be equivalent to those of this act: Provided, Such state shall accord a like privilege to holders of certificates from this board. The fee for regis-

tration from applicants of this class shall be ten dollars.

Manifold Nature of Diabetes.—This new feature of the pathology of diabetes, far from being a source of confusion or discouragement in an already involved subject, is a confirmation of the accepted views of clinical observers as to the manifold nature of the disease. In diabetes, as in so many other affections, pathology is gradually coming to supply, though dilatorily, the scientific basis for the truth of the conclusions of clinical experience. The present situation should be a source of renewed encouragement to labor in the recently almost neglected field of actual bedside observation of disease as the surest source of practical medical knowledge.—(*Journal American Medical Association.*)

"Poets are Born."—In a discussion at the Societe Medico-Phychologique of Paris Dr. P. Chaslin discussed a recent publication by Mobius on the heredity of poetic talent. The conclusions arrived at were that great poets are solitary and exceptional, even among persons or families exhibiting a taste and aptitude for poetry: secondly, that the mother of the poet is always an intellectually gifted woman, and the son of a stupid woman is always stupid; and thirdly, that poetic talent is distinctly hereditary and is transmitted through the mother alone. Dr. Chaslin cited numerous instances supporting these conclusions. In this connection Goethe's views regarding his intellectual inheritance are interesting. He believed that his "joyous nature and turn for poetizing" came from his mother, and his stature and seriousness from his father.—(*New York Post.*)

Exclamatory Rheumatism.—Martha, the colored washerwoman, was complaining of her husband's health to one of her patrons. The *Christian Register* reports the dialogue: "He's ve'y po'ly ma'am, ve'y po'ly. He's got dat exclamatory rheumatism." "You mean inflammatory, Martha. Exclamatory is from exclaim, which means to cry out." "Yes, miss," answered Martha, with conviction, "dat's what it is. He hollers all de time."

ILLINOIS REGULATIONS.

Beginning with January, 1903, the schedule of minimum requirements for medical colleges to be considered in good standing by the Illinois state board of health will be in force. All previous rules and regulations adopted by the board will stand repealed on the last day of December, 1902. The colleges must require that creditable certificates of good moral character, signed by two physicians of good standing in the state in which the applicant for admission to lecture courses last resided, are presented by the applicant for admission to courses of study in the college. As evidence of preliminary education, the applicant will be required to present, as a *minimum* requirement, a certificate or diploma from a high school; or a certificate signed by a principal of a regularly organized high school or by the examiner of a faculty of a recognized literary or scientific college or university, or by the State Superintendent of Public Instruction, of having passed an examination in all the several branches embraced in the curriculum of a four years' high school course. It is also provided that the natrictulation examination shall not be conducted by any member of the faculty of the medical college to which admission is sought. The board will require documentary evidence of preliminary education, together with a medical diploma, of all applicants for a state certificate.

Applicants for advanced standing who hold the degree of A. B. or B. S. or an equivalent degree from a regularly established college of arts or science which requires an attendance of three years or more as an essential to graduation, may be given credit for work done in the branches of the medical curriculum of the first year and may be advanced to sophomore standing in a four years' medical course, provided that they comply

with the entrance requirements of the board, and that they subsequently complete the freshman work in a manner satisfactory to the board.

For the colleges, each regular term shall consist of not less than 800 hours of work and the branches of medicine to be included in the course of instruction shall be at least as follows: (1) Anatomy, (2) Physiology, (3) Chemistry, (4) Materia Medica and Therapeutics, (5) Theory and Practice of Medicine, including Ophthalmology, Otology, Dermatology and Neurology, (6) Pathology and Bacteriology, (7) Surgery, including Orthopedic Surgery; (8) Obstetrics, (9) Gynecology, (10) Hygiene, (11) Medical Jurisprudence, (Forensic Medicine.)

Regular attendance is required, a maximum of 20 per cent. of properly excused absences (due to sickness) being allowed.

Each student must have dissected at least the lateral half of a human cadaver and shall receive clinical and hospital instruction throughout at least two annual terms.

Due provision is to be made by the colleges for the establishment or maintenance of a sufficient and competent corps of instructors, and facilities for teaching, dissections, ambulatory and hospital clinics such as obtain in the majority of medical colleges in the United States.

Good for New Jersey.—Forty out of 48 candidates passed the recent examinations. The New Jersey State Board maintains reciprocal relations with other States whose examining and licensing requirements are at least equal to those of New Jersey. The number of States entering into such reciprocity with New Jersey is constantly increasing.—(*Philadelphia Medical Journal.*)

For Nervous Insomnia.—Skelton, in the *Clinical Review*, suggests that for insomnia from nervousness or worry: Bromides gr. xx four times daily, are incomparably the best.

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

WALTER C. BOYNTON, Manager.

—ISSUED BY—

THE DETROIT MEDICAL JOURNAL CO.,

NOTE.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, to 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., SEPTEMBER, 1902.

RUDOLPH VIRCHOW.

Dispatches from Berlin convey the mournful information that Prof. Rudolph Virchow, the world's foremost pathologist, passed away on September 5. What a blow to science! Now that Virchow is gone, Germany may well weep a man who has done perhaps more than any other to place her in the front ranks of medical research. His like is seldom found, and his death is little short of calamity to the world of science and medicine.

Born at Schivelbein, Pomerania, on October 31, 1821, Virchow received his education in Berlin, graduating in medicine at the age of twenty-two. Four years later he was appointed to the staff of the Charite, the famous hospital that has served as the educational nursery for so many famous physicians. The young doctor of twenty-seven threw himself heart and soul into the work, and went with equal enthusiasm and fervor into the troubulous political happenings of 1848. So firm a supporter of republican principles did he become, that he was obliged to give up his staff position. The neighboring kingdom of Wurzburg, however, gladly welcomed the already famous physician and he received a chair in the scientific faculty of the University. Here he established a laboratory of pathology, to which stu-

dents from all over the world gathered to hear him lecture.

In 1856 he was urged to return to Berlin and did so, assuming a professorship at the University of Berlin. Two years later he wrote his great work on cellular pathology, which has remained a monument to his studies. It appears that his earlier experiences did not restrain him from giving utterance to ideas that were at variance with the prevailing tone of things political, and in 1887 he was again practically obliged to relinquish his position at Berlin. But again, five years later, he was asked to return and acceded to the request, probably feeling that the field for his work was larger in the great city. His liberal views made the matter of public or official recognition a thing difficult for him to obtain, but his colleagues in medicine were not slow to see the value of what he had done, and in the later years of his life the imperial government itself saw fit to give him the recognition that was his most just due.

Several times before in his career, illness has stricken Virchow at times when the world was most anxious to do him honor. In 1897, the world of medicine was to have celebrated his fiftieth anniversary as a teacher in Berlin, but illness prevented the carrying out of the elaborate plans made. His gigantic labors in medicine, literature and politics bowed his constitution time after time, only to have it regain its normal condition. He may be said to have literally worn himself out in the pursuit of studies, the ultimate aim of which was always the good of mankind.

With all his studies in pathology archaeology and anthropology, Virchow found time to be an active political student and worker. He was a member of the Russian Chamber from 1862 to 1871 and a leading member of the Reichstag from 1880 to 1893. His liberal view made him a notable figure and he did not hesitate to comment upon anything that

he thought needed correcting, however lofty or hedged about with authority it might be. His origination of the word "kulturkampf" recalls the work he did in the struggle between the state and the reactionary church.

As a writer, he was a tireless worker. In 1848 he established the well known "Archiv fur pathologische Anatomie und Physiologie und fur klinische Medicin," the same year that he wrote his treatise on cellular pathology. To this he has contributed for years, besides writing innumerable monographs on his favorite studies. In the years 1863 to 1867 he wrote a three volume work on the pathology of tumors which has received recognition all over the world, translations being made into the other languages of civilization. He was one of the founders of the German Archaeological Society in 1869 and in 1870 he became its president. He was also a leader in the Berlin Anthropological Society from 1869 on. His prominence in politics may be inferred from the fact that he was the personal opponent of Bismarck and that at one time the latter nearly engaged him in a duel.

Rudolph Virchow's name stands out so prominently in connection with pathology that it is scarcely possible to think of the one without the other. He has been a faithful student and an equally faithful teacher, tireless in all that he did for good, and shunning evil. His death is a mighty loss to Germany and to the world.

AUTOMOBILES FOR PHYSICIANS.

Every new idea that is of value to him in his profession is readily picked up and made use of by the modern physician. He wants the latest and most improved devices in the line of surgical devices. If a new treatment comes up which has been tried with success by men in whom

he has confidence, he gives it a trial. The modern advance in knowledge is largely due to this adaptability of the physician to modern ideas and invention.

For every physician who has a large practice which is not chiefly confined to office treatment, some means of rapid locomotion is an absolute necessity. In a city of any extent, where his patients are somewhat scattered, the street cars are not to be depended on. Something that is easily gotten ready for use, that is quick and not too expensive is what is wanted; and to fill these requirements an automobile is the thing. While its initial cost may seem large, it is really not much more expensive than a good horse and buggy. It is vastly more convenient than these, is more easily gotten ready for use and is much more speedy. Also, it "stands without hitching." There is no need for a man to accompany the physician, to drive the horse or to hold him while the physician is making his calls; neither is there any disagreeable odor from the automobile, to cling to the physician. An automobile does not require the care that is necessary for the horse, either in the barn or in general, and is always ready to be used for business or for pleasure. An owner who understands his machine may well take entire care of it.

For the doctor who can afford one, and who has some means of charging the storage batteries, an electric automobile is possibly the best. While they are not so speedy as some others, they can discount a horse in the amount of ground they can cover in a day, and they are little trouble to take care of. They are built in designs as handsome as are any in the carriage line and are well adapted for a physician's use. The steam machines have their strong adherents as well, though comparatively few physicians in Detroit are running this type of machine.

For the doctor who does not care to

pay the price of an electric machine, the gasoline engine offers itself. This type is also well adapted for use over country roads, and the means for securing fuel are at every hand, all through the country. It is merely a matter of a few minutes to prepare the engine for use, supplying it with gasoline and water and oiling the necessary parts. There is no delay in fitting the machine for a run, and the speed of a gasoline motor is limited, practically, by the police and the chauffeur's own willingness to take risks. With the machine in proper condition, the turn of a handle starts it at once and under proper management it will keep going as long as the supply of fuel keeps up.

It may be urged by the novice that the matter of the care of an automobile and the keeping of it in repair is one of no small moment. This is undoubtedly true to a certain extent. Some knowledge of mechanics is a desideratum, but this can readily be gained in a short time by a man possessed of keen intelligence. A man would not ordinarily attempt to drive a horse of which he knew nothing, unless he had some general knowledge of horses; neither should a man attempt to drive an automobile without some knowledge of the general subject of automobiling. Once knowledge is gained, the owner of a machine finds himself prepared to surmount any difficulty short of a serious accident. When this happens, there is always the repair shop, where repairs can be quickly made. Every owner of a horse and buggy has to make some outlay for shoes and repairs throughout the year; the care of an automobile would cost him a sum no larger than the one he spends annually to keep his turnout in condition. He avoids board bills for the horse and the hire of a man to look after the animal.

The automobile is tireless, as long as its fuel supply is kept up. A busy practitioner has to keep two horses in order

to avoid wearing one out too fast, but the automobile does not have to be considered in this regard. The city pavements that are so hard on a horse's hoofs are the roads upon which a machine does its best work and the driver of an automobile need not feel that some horse is being kept too hard at work. With an automobile, the physician saves time on his rounds, gets through more quickly and has just that much more time left for recreation and pleasure. After a day's work, the automobile is just as ready to serve as a means for recreation as it was to act as an aid in business. Riding in a swift automobile is one of the most delightful and exhilarating pleasures possible, and it is always at the command of the owner of a machine in good condition. The doctor who is tired from a day's work may seek and find relief in a pleasure ride through the city and its suburbs.

If more physicians owned automobiles, it would have a good effect on the minds of the public in general. Many people are bitterly opposed to the use of the machines because accidents are still numerous. The use of this means of locomotion by careful men would be a good thing in this regard. In competent hands an auto is no more dangerous than a horse. Fast driving is an offence in the eyes of the law—and very properly so. So is running an automobile at a speed faster than the law allows. Under ordinary conditions the machine is controlled and stopped quite as readily and as quickly as a horse.

ADVERTISING.

Every progressive physician, in order to remain progressive, must keep up his reading to a large extent. By doing this, he keeps in touch with what his fellow practitioners are doing, notes the new methods of treatment, learns of new operative technique and daily fits himself to better handle his cases. The phy-

sician should not neglect the advertisements published in ethical journals. If he does so, he may miss something that would be of value to him, something that would just fit a case which has proved stubborn against the treatment he has been giving it; but, in order to strike the physician favorably, an advertisement must be couched in language that does not offend by its familiarity or its suggestiveness.

For example, no good physician would like to be hailed on the street by an acquaintance not in good standing in the profession with the salutation, "Hello, doc. Want a good emmenagogue? Two dollars a pint." This sort of talk would probably meet with slight encouragement from the physician addressed, if it did not result in a sharp rebuke for the man who was guilty of so serious a breach of decorum. And yet, in one of our exchanges, we note an advertisement that begins, "Physicians, Ahoy!". It then goes on to question the practitioner whose attention is supposed to have been attracted in the courteous manner indicated. "Do you need a reliable remedy for Gall Stone or Bright's Disease? It will cost you only \$2.50 per pint bottle," goes on this breezy questioner. "Do you need a cure for Rheumatism? \$2.00 a pint. (State nature of case.)" it continues. Out upon t! What sort of a panacea is it that alls in its advertisement for a statement f the nature of a case?

"Positive," "Certain," "Never failing," "Sure," "Reliable" and similar adjectives are used to describe remedies of which the user is to know nothing. What man his senses would make use of such trash? The man who advertises in this way hurts everybody. He hurts himself the estimation of the thinking man, he injures the business of the legitimate advertiser and he undermines the standing of the journal that publishes an ad-

vertisement of medical wares that are hawked about like stockfish. The nature of the advertiser is further revealed in the concluding line of the advertisement he publishes. "No goods sent C. O. D. Money must accompany order. Refunded if not satisfactory on fair trial" winds up this remarkable statement of infallibility. In this connection it may be well to state that the miraculousness of the cures guaranteed can not compare with the miraculousness of getting money back from a man who advertises as does this one. There are ethical ways of advertising, just as there are ethical ways of practicing. And the line is as clearly drawn in the one as it is in the other.

VIVISECTION.

For centuries past the subject of vivisection has engaged the attention of the medical profession and of the laity, but for widely differing reasons. Medical men have been engaged in a series of scientific investigations, conducted primarily for the benefit of mankind, and the laity has in no small number of cases sought to put a stop to what it considers a useless and a harmful practice. It is safe to say that no one not a true physician should be permitted to engage in vivisection, for the reason that a large amount of pain and suffering is undoubtedly caused to the animal undergoing the experiment; and in the hands of any one who has not the ultimate benefit of the race in mind, the practice may lead to a sort of moral degeneracy. It is, no doubt, a matter of regret to many that the furnishing of supplies of animal food to the public should be preceded by the death of the animal whose carcass furnishes food; and the vegetarian can find many arguments to advance, showing why the killing of animals for food should be discontinued. So with the anti-vivisection-

ists, who are ready with statements innumerable to show that vivisection is necessarily brutal and bad.

On the one hand, however, is the butcher, who kills the animals for food because he is paid for it. He is not apt to be a cultured individual, and it is doubtful if he ever thinks of the pains of death inflicted on his victims. In some cases he probably becomes brutal from long association and habit. The vivisectionist, on the other hand, is actuated by the best of motives. He finds no real pleasure in inflicting pain, any more than he finds gratification in watching the death struggles of a patient whom he has tried to save. From the treatment of disease in one patient he discovers facts that may benefit another; and in death itself he seeks to find something that may better equip him to combat disease and dissolution when similar conditions again arise. It is no more fair to him to say that he inflicts pain wilfully, without the end that evil conditions may be corrected, than it is to say that a dentist deliberately inflicts pain on his patient in the chair. Pain seems to be a necessary condition in many diseases; it has long been recognized as a useful sign in diagnosis, and indeed forms one of the surest means for detecting the presence of disease. Presumably every physician and surgeon would prefer to have his patients suffer absolutely no pain during his ministrations; the latter secures insensibility by general anaesthesia, but when the effects of the anaesthetic passes away, pain returns and the system has to overcome the effects of the pain-dispeller before a cure can result. The use of any drug for the purpose of freeing a patient from pain is always attended with more or less danger to the sufferer.

In vivisection, properly carried out, the object of the experiment is to determine by means of certain operations on

the lower animals some truths that will be of service in the treatment of similar conditions in human beings. And the man who undertakes vivisection with any other object in view very properly exposes himself to the suspicion that he is a brute.

One of the most constant demands of the anti-vivisectionists is that the animal under treatment shall be anaesthetized. This demand it is very difficult to follow out. When dogs are the subject of experimentation, it is a matter of the greatest difficulty to avoid killing the animal under the anaesthetic alone. The line between life and death in a dog is very easily passed when the animal is under an anaesthetic and before an experiment has been concluded the dog may have become useless for the purposes of the experimentator. The animal undergoing vivisection may be killed when the experiment is completed, but it seems to us that the operator is justified in permitting it to live, provided that he is desirous of making notes on its convalescence, with a view to acquiring knowledge in this manner. The lives of many thousands of dogs are annually taken at the pounds of our cities, and not always in a manner to insure a painless demise. Yet the benefits to society that accrue from the death of the vagrant and homeless dogs can scarcely be said to surpass the benefit to society gained by the study of dogs alone under vivisection.

The laity is frequently of the opinion that the pain inflicted by the physician or the surgeon is unnecessary and useless. There is almost always a dread of an operation induced not only by the thought that its effects may be serious but also by the dread of the pain which follows. The necessity and benefits of operating have been determined by operations on living human beings. There is much to be gained by the earnest student by performing vivisection on ani-

mals properly chosen for their fitness in demonstrating the facts that the experimenter desires to establish.

When the end is justified by the means, almost any means is admissible; and the vivisectionist has rights in the prosecution of his studies—always supposing him to be actuated by the proper desire for knowledge. Vivisection per se is not necessarily more potent in producing brutality than is the practice of surgery itself.

EDITORIAL NOTES

In a report on the requirements of the various states through their boards of registration in medicine for admission to practice, recently published, the following requirements are given for the state of Michigan: "The board of registration in medicine issues certificates granting license to graduates of a legally incorporated, regularly established and reputable college, as 'shall be approved and designated by the board of registration.' All others must pass an examination before the board before registration. The fee is \$10."

The following colleges are at present "designated" by the board as those whose diplomas will be accepted without examination: California—California Medical College; Connecticut—Yale University; Illinois—Bennett College of Eclectic Medicine and Surgery, Chicago Homeopathic Medical College, Hahnemann Medical College and Hospital, Illinois Medical College, Northwestern University, Northwestern University Woman's Medical School, College of Physicians and Surgeons and Rush Medical College; Indiana—Physio-Medical College of Indiana; Iowa—University of Iowa, Homeopathic

Medical Department and University of Iowa; Maryland—Johns Hopkins University; Michigan—Detroit College of Medicine, Detroit Homeopathic Medical College, American Medical Missionary College, Grand Rapids Medical College, Michigan College of Medicine and Surgery, Saginaw Valley Medical College, University of Michigan, Homeopathic Medical College and University of Michigan; Minnesota—University of Minnesota, Homeopathic Medical College and University of Minnesota; Missouri—American Medical College and Homeopathic Medical College of Missouri; Nebraska—Lincoln Medical College; New York—Cornell University, Albany Medical College, Buffalo Medical College, Eclectic Medical College, City of New York, College of Physicians and Surgeons, Long Island College Hospital, New York Homeopathic Medical College and Hospital and University of New York and Bellevue Hospital; Ohio—Cleveland Homeopathic Medical College, Eclectic Medical Institute and Western Reserve University; Pennsylvania—Hahnemann Medical College, Jefferson Medical College and University of Pennsylvania; Tennessee—Vanderbilt University.

A note contains the information that this list does not indicate that a diploma from a college not named may not be accepted, but that it is possible that no graduates from colleges not in the list have applied for registration and the board has therefore never passed on their qualification.

In the published list of applicants examined by the state board from Michigan institutions, the following table is given: University of Michigan—passed, 28; failed, 2; total, 30; per cent, 93 1-3; Detroit College of Medicine—passed, 8; failed, 2; total, 10; per cent, 80; Saginaw Valley Medical College—passed, 1; failed, 1; total, 2; per cent, 50; Michigan College of Medicine and Surgery—passed, 1; failed, 2; total, 3; per cent, 33 1-3.

The right of a posthumous child to share in its father's estate, when the will of the latter makes no provision for such a sharing, has recently been decided by Mr. Justice Lount, at Toronto, says an exchange. The case was that of a farmer in western Ontario, who died, leaving a widow and four children; four months after the father's death, a fifth child was born and the executors of the estate applied to the courts to know whether or not the new-born child was entitled to a pro rata share in an insurance policy of \$2,000. The ruling was that a child unborn is still a child in law and consequently an heir equally with the others under the will. The case is said to have been the first of the kind ever raised in Canada, but we have a notion that this is partially accounted for by the fact that executors under ordinary circumstances would have been content to have the posthumous issue take rank with the heirs living at the time of the testator's demise.

A physician has recently reported to us a feature in connection with accident insurance policies that it may be well to bring to the attention of the profession. Most policies written for physicians cover injuries resulting from septicaemia, and this point of the policy is strongly kept before the mind of the physician who takes out insurance of this kind. Our informant was insured in an accident insurance company and when he was written up stress was put on this feature of his policy, as affording him protection in case of blood poisoning. As it happened, he contracted blood poisoning at a recent operation and sought to recover from the insurance company, but the claim was disputed on the ground that the poisoning did not result from a traumatism. The agent of the company then pointed out to the physician that this was a feature necessary to a recovery of damages. An abrasion

on the hand, it was explained, might have been the cause of the injury, and as the physician was not willing to make affidavit that the accident had occurred as a result from the prick of a needle or from a small cut, the claim was disallowed.

The justice of this attitude on the part of the insurance company may be disputed. The remedy lies in the insured reading his policy over very carefully, so as to make sure that protection against loss of time and money resulting from blood poisoning contracted at an operation is really assured. Look over your policy, and be sure on this point.

The evils of substitution were strongly shown by a New Orleans man's recent experience. He bought a bottle of a cheap antiseptic preparation, which was labeled to the effect that it could be used internally as well as externally. Serene in this knowledge, he took about four ounces of the mixture in moderate doses; then his sight began to fail, and with a commendable spirit of seeking after the truth and incidental satisfaction, he sent what was left of the "antiseptic" to a chemist for examination. The latter reported that about 20 per cent. of methyl alcohol was present in the liquid. This sort of thing is growing in frequency and will persist until a comfortable number of experimentors are killed and the matter is given its due publicity. Then, perhaps, more care will be exercised all 'round. The druggist will buy more carefully, the physician will prescribe less of proprietary medicines and the seeker after health will try to have a little more exact knowledge of the mixture which he cheerfully introduces into his internal economy. The first few who die will be martyrs in a worthy cause.

The first number of the *Journal of the Michigan State Medical Society*, for September, has been issued to its readers.

The cover bears the seal of the society and the title of the journal, with the names of the society's officers. Dr. Andrew P. Biddle, secretary of the society, is editor and the journal is published monthly under the supervision of the council. The table of contents includes President Connor's address at the June meeting of the society in Port Huron, and papers by Drs. Angus McLean, Mortimer Willson, John E. Clark, John McLurg, Walter R. Parker, Irwin H. Neff and Joseph B. Whinery. The make-up and the general appearance of the first number reflect credit on the editor and the management and we are glad to welcome the newcomer in the field of medical journalism.

At the last meeting of the Wayne County Medical Society in the Hotel Notmandie, Dr. Emil Amberg read a paper on "The Surgical Anatomy of the Middle Ear," as a factor in favor of early interference in suppurative affections of the same (with demonstrations). There were about forty members of the society in attendance and the discussion following the paper was an interesting one. It was participated in by Dr. R. W. Gillman, Dr. Leartus Connor and others. This meeting was the first to be held since the amalgamation of the two societies in Detroit, and Dr. Amberg thus had the honor of being the first to present a paper before the new organization.

The programme of the Central Michigan Medical Society for the regular meeting on September 11, was as follows: Call to order and roll call; Business meeting—Drs. J. C. Wilson, Vice-president State Medical Society, and C. B. Burr, District Councilor, address to the society regarding re-organization of the society into the Ingham County Medical Society; Paper—"Electro-Physics," by Dr. C. L. Barber, of Lansing; Discussion, led by Dr. R. E. Miller, of Lansing;

Clinic, in charge of Drs. R. J. Shank and H. A. Haze; Reports of Cases by members.

We shall note with interest the results of the business meeting. It would be another step in a good direction if the society should be organized into a county society.

The American Laryngological, Rhinological and Otological Society elected the following officers for the year at its last annual meeting in Washington: President, Dr. J. A. Stucky, Lexington, Ky. Vice-Presidents, Drs. M. R. Ward, Pittsburgh; L. C. Cline, Indianapolis; C. D. Roy, Atlanta; and P. F. Gildea, Colorado Springs. Secretary, Dr. W. C. Philips, New York. Treasurer, Dr. E. W. Day, Pittsburgh.

At the Saratoga meeting of the American Academy of Medicine, the following officers were elected for a year: President, Dr. Charles McIntire, Easton, Pa. Vice-Presidents, Drs. William R. White, Providence, R. I.; George Dock, Ann Arbor; Rosa Englemann, Chicago; and D. C. Hawley, Burlington, Vt. Secretary, Dr. A. R. Craig, Columbia, Pa. Treasurer, Dr. Edgar M. Green, Easton, Pa.

Parisot, the French chemist, is reported to have discovered a means for preserving the freshness of eggs for an indefinite period. We are already familiar with a sort of dessicated egg, which is reported by those who have had the temerity to eat articles of food prepared from it to be extremely good. But Parisot's method of preservation consists in immersing the egg in a liquid, the cost of keeping the eggs fresh being estimated at about 15 cents a thousand. This sounds "cheap, and nasty." Hereafter, if any strongly confirmatory report of the Parisot preservative comes to our notice, we shall eschew eggs as an article of diet.

NEW INSTRUMENTS & DEVICES

Mention of new instruments and devices in this department is entirely complimentary and articles illustrated are judged on their merits.

We invite manufacturers and physicians to send us matter suitable for publication under this head. A description of the device and an electrotype or half-tone with a base not greater than two and five-eighths inches should be sent.

Always mention the price of the article in question.

The management cannot undertake to return cuts unless postage for same accompanies the letter with which they are sent.

CONTAGIOUS DISEASE GOWN.

For the physician whose practice calls him to attend cases of air-borne infectious diseases this gown will suit every purpose. It is purposely made large and loose, so that it does not gape at the

fastenings on the gown, but drawstrings at the waist and for the hood hold it securely in the position desired.

An outside pocket is provided, in which a pair of rubber gloves for the hands and a strip of gauze or a handkerchief for the lower part of the face may be carried. The gloves are to be drawn on before the sleeves of the gown are fastened at the wrists. The gauze or handkerchief is placed over the chin and the lower part of the face and the ample hood is then drawn over the head and secured in place with its drawstring.

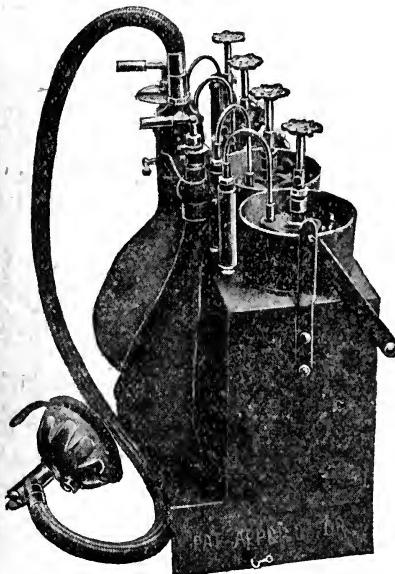


fastenings and expose any part of the physician's clothing. There are no metal

The large cut illustrates the gown on the wearer and the smaller one shows it ready for transportation. It should first be sprayed with a one to one thousand solution of corrosive sublimate, rolled up and wrapped in a square sheet of rubber or mackintosh. When prepared in this manner, the gown will keep damp for an indefinite period and should be worn in that condition while attending a case. The gowns are made in three sizes—40 inch bust, 52 inches long; 44 inch bust, 56 inches long; and 48 inch bust, 60 inches long. The price is one of the most strongly commendatory features of this gown, as all sizes have the same cost—\$3.50.

NITROUS OXIDE AND OXYGEN APPARATUS.

The device illustrated herewith is designed for the safe and convenient administration of nitrous oxide and oxygen as a general anaesthetic for surgical operations, and is admirably fitted for that purpose. Two cylinders of each gas are used, one of each being constantly being in reserve, to avoid the exhaustion of one or the other at inopportune moments. The valves of the nitrous oxide container are warmed, so



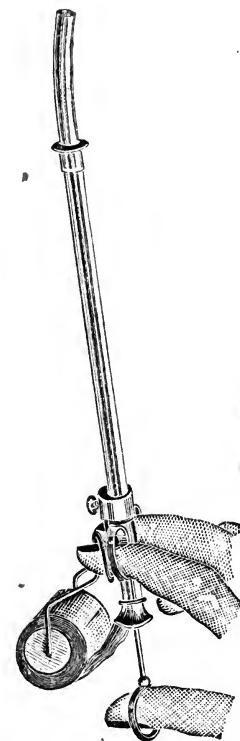
as to do away with the danger of freezing, and the gas may be administered at a suitable temperature, a thermometer being a part of the equipment shown. By means of a valve, pure oxygen may instantly be supplied, at a pressure sufficient to inflate the lungs of the patient. The two gases may be given in any desired proportion, through the agency of a small mixing-cup, out of which the mixed gases are admitted to the lungs.

In a hundred or more cases, no after ill effects of the anaesthetic are recorded, and this is attributed to the exactitude with which the two elements may be mixed. The apparatus is simple in con-

struction and easy to operate, besides being easily portable. Space in the box is provided for carrying a number of surgical instruments. The apparatus is handsomely finished.

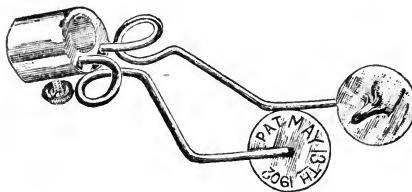
REMUS GAUZE REEL.

This aid to the surgeon is devised for an attachment to a uterine packer and has for its object the superseding of the old clumsy method of feeding the gauze, and at the same time to prevent the gauze from coming in contact with an unsterilized surface. This has been accomplished to a remarkable degree. The reel is simple, easily rendered sterile,



and is very compact. It can be operated with one hand, leaving the other free, and is in fact what one surgeon has aptly called it, "The physician's third hand." The reel consists of a metal sleeve or jacket, to which side springs are attached with the ends bent inward

at right angles, thus forming prongs or pivots upon which the reel will revolve. These are sharpened to a point, so that they will enter the roll easily; ears or flanges are soldered at the butt of the



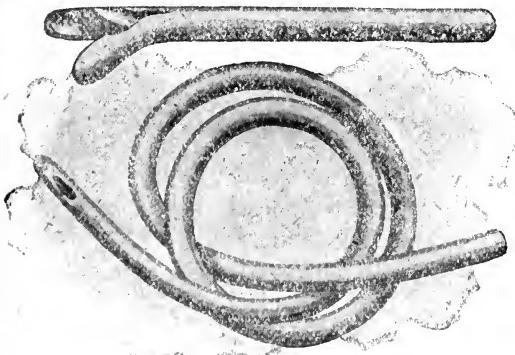
pivots, to ensure a free, easy tension.

The reel is attached to the packer by slipping the sleeve over the end of the tube until the spiral of the spring comes directly beneath the finger-holes. It is then firmly secured by a thumb-screw. To insert the gauze, pull the springs apart and press the pivots firmly into the center of the roll.

Economy with convenience is assured in the use of this reel, as the price is set at \$1.00 each.

PNEUMATIC-END CATHETER.

Owing to the many objections that have been found to the solid-end flexible catheter, and almost equally to the hollow ended form in the treatment of



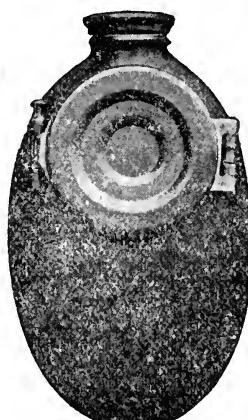
certain conditions, the manufacturers have sought to evolve a form that should meet all the requirements of a catheter for work on hypertrophy of the prostrate or dilatation of the bladder.

They believe that they have now found the solution in the device herewith presented. The end below the eye is inflated, being of such a shape as to exclude foreign matter, but permitting air to enter; the end is closed below the eye but at the same time it has all the softness of an air-cushion. In this form of catheter, all the advantages of the solid-end type are realized; it does not carry infection and the end is sufficiently rigid to permit of penetration. It is, however, equally soft and flexible with the hollow-end. The enclosed air-space gives life to the tip, causes it to tend to constantly preserve its shape, to resist compression steadily, to exert an enlarging effect and to center truly in the passage explored.

The catheters are made of the best material and are easily cleansed. They come in the customary sizes and retail to the physician for twenty-five cents apiece.

SANITARY POCKET CUSPIDORE.

Physicians are practically unanimous in stating that there is grave danger of infection from the sputum of consump-



tives and therefore some method that insures the proper care of the sputum is something of interest to all. This device is a full nickel-plated cuspidore,

four and one-quarter inches in length, designed to fit easily into the pocket. It is withdrawn under cover of a handkerchief, when pressure on the top permits the cover to fly open. The sputum is deposited into the funnel-shaped opening, and the cuspidore returned to the pocket.

Being made of metal, it is non-breakable, and a rubber ring about the cover prevents it from leaking. When it is desired to clean the cuspidore, the rubber ring is removed and the receptacle boiled; or, it may be flushed with hot water or a carbolic solution. One hand alone may be used in handling this device and its presence in the handkerchief attracts no notice. The price of the device is \$2.00 each.

IMPROVED SYRINGE FOR WOMEN.

The fact that there is so large an assortment of syringes for women on the market proves their popularity and improvements in form or in ease of application are constantly being made. One of the latest ideas in syringes is embraced in the one illustrated herewith. It admits of use for both vaginal and rectal injections and when utilized for the former it prevents leakage of the liquid used. The flexible rubber portion fits closely against the parts and when the bulb is released the liquid returns to the syringe, carrying with it the discharges. It thus acts as a pump, and the same amount of injection can be used over and over again until cleanliness is established.

The chief feature of novelty in the syringe is the tip, which is adjustable after the manner of the brass nozzles in common use on garden hose. By turning the tip the user is enabled to produce a varying amount of liquid, from a fine and soothing spray to a flood of

water. The syringe is well and strongly



made, of good material, and retails to the profession for the sum of \$2.25.

Pointers for Everyone.—Nothing hurts a self-made martyr like being ignored.

Much of the milk of human kindness tastes of the pump.

Even the women of few words is continually warming them over.

A man growls, a woman smiles—and the latter gains her point.

It is one thing to do a good act and it is another to say nothing about it.

One of the greatest pleasures in life is to be found in counting the money we expect to make.

It isn't the little a man has but rather a desire for more that puts him in the poverty-stricken class.—(*Chicago News.*)

THEAPEUTIC BREVITIES

Urinalysis Suggestions.—The worker in urinalysis can scarcely fail to find much that is of benefit to him in a careful reading of the late Dr. Charles W. Purdy's book on "Practical Urinalysis and Urinary Diagnosis." This manual, though not new, is still found to contain practically that which is necessary for the investigator to know, and moreover the text has the weight of authority. With these facts in mind, it is interesting to note what Purdy has to say on the various tests at hand for the detection of the presence of albumin in the urine. He says very properly that the chief clinical interest with regard to proteids in the urine will probably always center about serum-albumin and he then goes on to detail the means by which the presence of the suspected proteid may be shown.

In all, seventeen tests are given in detail, but the chief interest centers on the ferrocyanic test, of which Purdy has the following to say:

"This test is exceedingly simple and rapid in application, as follows: Into the bottom of a clean test-tube is poured 15 to 30 drops of acetic acid, then about two or three times that amount of solution of potassium ferrocyanide (1 to 20) is added, and the two thoroughly mingled by shaking the tube. The urine is next added, to the depth of two-thirds of the test-tube. If albumin be present, it will be precipitated throughout the whole volume of the urine in the form of a more or less milk-like, flocculent cloud, according to the quantity of albumin present. The ferrocyanic test applied by the above method avoids the mucin reaction, and precipitates all modifications of albumin, acid and alkaline. On the other hand, it gives no reaction with phosphates, urates, peptones, the vegetable alkaloids, or the pine acids. This test may also be applied as follows: Fill an ordinary test-tube half-full of urine, and add a drachm or so of potassium ferrocyanide solutron (1 to 20). After thorough mingling of the urine and reagent, add a few drops (10 to 15) of acetic acid, and if albumin

be present it will come plainly into view. This is a most trustworthy test, if applied by either of the above methods, and it may be depended upon for the detection of albumin in the urine, either in large or small amounts, without further corrections. Any precipitate produced by this test, when applied as above, *is albumin, and nothing but albumin.*"¹

This certainly appears to be definite enough. It is to be noted that Purdy is thoroughly in earnest about what he says and that he is insistent upon the test being carried out precisely as he says it shall be. The very convenience and simplicity of the test should be one of its strongest recommendations to the physician who is making the examination. No heat is required, the test is easily carried out, even by unskilled hands, and the result is immediate and convincing. When the urine has been permitted to stand for some time the albumin already shown forms a characteristic precipitate in the bottom of the tube, and a rough quantitative estimate may be made.

Purdy adds the following characteristic paragraph to what he has to say on the advantages of the ferrocyanic test for albumin: "Over ten years since, (1895) the author claimed (Journal of the American Medical Association, January 19, 1884) that the ferrocyanic test for albumin was the most ready and trustworthy of the list. Again, in 1886, the author wrote (Bright's Disease and Allied Affections of the Kidneys, p. 43): 'Subsequent use has shown me that this test is the least liable to errors of all tests for albumin in the urine, if properly applied.' The fact that within the past five years the ferrocyanic test has been given the preference in many of the leading laboratories and clinics in Continental Europe over all others only confirms the author's views both then and now."

What He Needed.—"He says he fell in love with her at first sight." "Perhaps I can be of service to him. I know a first-class oculist."—(*Philadelphia Bulletin*.)

¹ It is improper to apply this test by previous acidification of the urine, because it is only by adding the ferrocyanide solution to the urine first or with the acid that the latter is prevented from precipitating the urinary mucin.—Purdy.

Carbolic Acid in Scarlet Fever.—Interest among members of the profession in specific treatment appears to be constantly on the increase and results of experimentation along this line are carefully watched. Considerable work with carbolic acid has been done lately in the treatment of grippe by Dr. Arthur Wigglesworth, of Liverpool, who has reported several cases of successful treatment with this medication. The same physician has had considerable success in the treatment of scarlet fever by the same means. His method consists in persisting in the treatment to the point of causing carboluria, maintaining this condition in the patient until the fever has thoroughly abated. This might well be expected to cause renal complications, but Dr. Wigglesworth's reports show that in his experience only three patients exhibited symptoms of this difficulty and then in a very mild form.

Another point of the treatment is the claim that the infection from patients under the action of the carbolic is a very mild one, which however, is said to be entirely efficacious in securing permanent immunity. Dr. Wigglesworth suggests that it would be advisable to permit children to contract the disease in its light form from patients under treatment rather than to let them run the risk of taking the disease in a more dangerous form later on. This procedure must of course be subject to the permission of the parents and until the treatment is more thoroughly demonstrated it is probable that little can be accomplished along this line. But any suggestion that will lead to reducing the mortality of so common a disease as scarlet fever can scarcely fail to obtain the interest of the profession, while a chance of lessening the probability of its becoming epidemic, especially among children, will be gladly welcomed, as much by physicians as by the parents of the children themselves.

Dr. E. S. Sherrill reports a satisfactory treatment of a child with carbolic acid for scarlet fever. The acid was exhibited in large doses, the patient being eight years of age, and receiving two minims of the acid every two hours. Dr. Sherrill's method was to make a mixture of one drachm of carbolic acid, one ounce of glycerine and water enough to make four

ounces. The patient was given a tea-spoonful every two hours, each dose therefore containing the amount mentioned. While one case is of course not sufficient to base a judgement upon, Dr. Sherrill states that the results were all that could be desired. The fever rapidly subsided, and all untoward symptoms were promptly brought under control. The treatment is worthy of a trial, at least, and we shall be glad to hear the results of any physician's treatment of scarlet fever with carbolic acid, either for or against the treatment.

Red Sulphuret of Arsenic for Abscesses.—Dr. Henry H. Cook reports that he has met with the greatest success in treatment with the red sulphuret of arsenic for abscesses and pus formations. In one of his recent cases the patient was suffering extremely from suppurative otitis media. The incision had failed to heal properly, and the amount of pus from the ear and from the incision was quite large. Temperature was high and the suffering was so intense that the patient had to be kept under the influence of morphine for some time. The treatment consisted in administering one 1-50 grain tablet of the red sulphuret of arsenic three times a day the first day, two tablets three times a day and the second day and three tablets three times a day on the third day of treatment. Treatment was then discontinued for a day and then resumed as before. By this time the temperature had subsided and the patient was so relatively free from pain as to render the continued administration of morphine unnecessary. Within a short time the patient was able to sit up in bed; she was free from pain, and at the time Dr. Cook made the report she was making an uninterrupted recovery.

The red sulphuret is also found to be of great value in treatment of feruncles and carbuncles, in the dosage mentioned above. Pain is promptly relieved, temperature reduced and the general condition of the patient much improved within a short time. In cases in which abscesses appear in crops the same preparation is well-nigh ideal. One case is reported of a woman who had a crop of seven abscesses in the bend of the elbow. As soon as one set reached a certain stage of development, another set appeared and the

condition of the patient was rapidly growing serious. The administration of the sulphuret checked the growth, improved the condition of those already formed, and permitted a speedy recovery. This form of treatment is said by those who have made use of it to wholly surpass in results the treatment by calcium sulphide. "It is better by a long shot," is the way one physician puts it.

The Use of Pure Icthyol.—Several physicians have found the continued use of pure Icthyol, pushed to a large dosage, of inestimable benefit in the treatment of tuberculosis, particularly in cases of advanced stages of the disease. One of the most convincing reports on the use of Icthyol is contained in that of the Loomis sanitarium, at Liberty, N. Y. Here there was a total of 64 cases. Of these, 17 were incipient, 39 moderately advanced and 8 far advanced. Treatment was begun with a dose of six to eight grains a day, gradually increasing the amount given until the patients were taking between 20 and 30 grains three times a day. Under this treatment the most gratifying results were obtained. Seventeen per cent were cured, 63 improved, and in 8 cases the disease was held in check, the patient's condition remaining stationary. In only 12 per cent was the effect of treatment not to the advantage of the patient. While this report is of course not entirely conclusive, it should have some effect in making physicians turn to the use of Icthyol when they are treating a tuberculous patient who is already in an advanced stage of the disease. It is particularly valuable in cases in which suppuration is present.

Plague in India.—The *Philadelphia Medical Journal* gives the following statistics: Although the advent of the hot weather has somewhat diminished the occurrence of the plague in India, there are still about 14,000 deaths weekly in the Punjab. The squirrels at Hassan, Mysore, caught the disease and have been completely wiped out. Both Delhi and Simla are free from the disease.—It is announced that 8 specially trained Japanese physicians have recently been engaged for the purpose of combating the plague at Hong Kong.

NOTES & COMMENT

Some of Dr. Long's "Millions."—"Recently there was referred to me by a medical acquaintance a specimen of semen, voided a little while before and amounting to six cubic centimeters," says Dr. A. L. Benedict, of Buffalo, N. Y., writing to the *Philadelphia Medical Journal*. "Many living spermatozoa were seen and, indeed, they were in active motion for six or seven hours afterward, though not kept above the ordinary room temperature. As the statements in text-books are rather vague as to the number of spermatozoa, it occurred to me that it might be of interest to put on record an enumeration, made with the Zeiss hemacytometer. A number of previous experiments had demonstrated that ordinary semen should be diluted about twice, to facilitate counting. I used both the Toisson solution and a half per cent. alcohol solution of dimethyl-amido-azobenzol, the latter staining smears so that heads appear bluish. In the chamber, neither of these diluents produced an appreciable stain and I had previously used potassium dichromate solution without securing a stain. However, by constantly adjusting the focus, the high refraction of the heads and the tails enabled the counting to be done without much trouble. The dilution is best effected by shaking in a graduated tube, using not less than 1 cc. of semen to avoid errors in measuring. From one to 21 spermatozoa heads were found in a square, the average being 7.21, corresponding to 57,680 spermatozoa per cubic millimeter. Thus, the entire emission contained over 346,000,000. Average emission, however, contains only from two to four cubic centimeters. It occurs to me that some one may find it of interest to investigate this matter at great length. As it has no direct bearing on my line of practice, it would scarcely be worth while for me to continue the investigation."

How It Works.—

Battle Creek, Mich., 6-20-02.
Mr. William E. Metzger,
Detroit, Mich.

Dear Sir:—

Thinking perhaps it would be interesting to you to know some of the details of a trip taken with one of your carriages through this country, I will mention a ride I have just taken from Battle Creek to Detroit and return.

The load carried was perhaps more than one would ordinarily take in a carriage of this kind over country roads. I took with me Mrs. Burt and our little son, nearly six years old, and quite a quantity of baggage. Leaving here Sunday morning, June 8th, after having had very severe rain storms on the 5th, 6th, and 7th, the roads were soft and in poor condition from here to Grass Lake, nearly one-half the distance. However, the trip was made from Battle Creek to Detroit in thirteen hours and eight minutes, a distance of 125 miles, sufficient proof that the "Oldsmobile" will do country work very satisfactorily indeed. I believe I am safe in saying I can go anywhere with an Oldsmobile that a horse can go. To be sure, one must not expect with so light a carriage, to climb sand hills and exceedingly hard places at a clip of twenty or thirty miles an hour, as is done by some of the large touring cars on European roads.

Our trip was made including a week's stay in Detroit, covering in all, probably five hundred miles, without accident or trouble of any kind, except on the return trip I was unfortunate enough to get some poor gasoline and was bothered a little one afternoon by the motor missing explosions.

Wishing you the success you deserve with this remarkable little runabout, I am,

Yours respectfully,
Harry E. Burt.

Score One for Alabama.—Judge Tyson, of Alabama's Supreme Court, has knocked out one of the props of osteopathy in that state. E. Eugene Bragg, a practitioner of osteopathy, in effect mandated the state to show cause why he should not be given a special license to practice his belief, on the ground that it was not the "practice of medicine." This was based upon the old contention that no drugs were administered and no operations undertaken in osteopathic treatment. Judge Tyson, of the Supreme bench, overturned the contention. His opinion says in part:

"Thus it is made entirely clear both by definitions and history that the word medicine has a technical meaning, is a technical art or science, and as a science the practitioners of it are not simply those who prescribe drugs or other medicinal substances as remedial agents, but that it is broad enough to include and does include all persons who diagnose diseases and prescribe or apply any therapeutic agent for its cure."

"The very first enactment on the subject (1823) prohibiting any person from prescribing for the cure of diseases for fee or reward without obtaining a license is a clear, unequivocal and unmistakable declaration of the legislative purpose to deal with medicine and the practice of it in its broad and comprehensive sense—as a science or art of healing and curing diseases. And this purpose has been rather emphasized than otherwise in subsequent legislation on the subject."

"Our conclusion, therefore, is that the defendant was engaged in the practice of medicine within the meaning of the statutes."

That sounds rather definite, and the chances are that E. Eugene Bragg will not be given a license to ply his trade in Alabama.

Made Him Useful.—An exchange prints the following: "A Kentucky farmer, who has been severely ill for the past few months with fever, has been put to a new use during his illness. His wife, rendered desperate, both by her husband's illness and the lack of income dependent upon it, has discovered a method for utilizing the bodily heat of fever. She placed 48 eggs in her husband's bed,

so protected that they would not be crushed by his movements. Her experiment proved entirely successful, only 4 of the 48 eggs failing to hatch at the end of 4 weeks." That sounds all right, but the Kentucky woman had apparently been reading Bunner's "Told in France." It is a much better story as Bunner tells it, and his Tony was a more successful human hen than his Southern successor.
—Ed.

Silk-Worm Glands.—The best silk-worm glands (sometimes called silk-worm gut) come from Italy, whence they are imported in large bundles. Until recently the glands were not specially prepared for surgical use, their chief utility being in the form of leaders for fish lines; now, however, they are being extensively prepared and used in surgery, some of the best operators making use of them for external as well as internal suturing. Adult silk-worms are made use of to furnish this material, and immediately after removal of the glands from the body of the worm they are immersed in a strong solution of corrosive sublimate, after which they are drawn out to the proper length and thickness for surgical use. There are still some concerns that make use of vinegar for the purpose of preparing the glands, but this procedure is dangerous, as the vinegar itself is often full of bacteria.

The glands have a great advantage over the so-called cat-gut sutures, which are really made from the intestines of sheep. In the latter, the fat and muscular fibre are separated by decomposition from the fibrous portion to be used as sutures. When this process is sufficiently accomplished, the fibres are twisted together to form the desired size; the only way in which freedom from infection from the material thus formed can be secured is to sterilize the twisted mass by dry distillation, and even when this procedure is followed, surgeons still use the cat-gut with more or less distrust. The glands of the silk-worm are, however, the ideal material for sutures, when properly prepared. They are indestructible when they are once imbedded; they are not absorbed and they do not absorb, and can be removed in a perfect state when they have served their purpose. They do not oxydize like silver wire and

they do not produce stitch abscesses as silk ligatures sometimes do. If they are rightly prepared, they are the best possible material for suture work, and the constant increase in the demand for the high-grade goods is one of the surest tests of their efficacy.

An Invitation.—

St. Louis, Aug. 25, 1902.

Dear Doctor:—

The undersigned committee takes pleasure in announcing, that Prof. William Osler, of Johns Hopkins University, Baltimore, will deliver a memorial address on "**William Beaumont**, the first and greatest American Physiologist," under the auspices of the "St. Louis Medical Society of Missouri." The lecture takes place at the Odeon, on Saturday, Oct. 4th, at eight o'clock, p. m.

The medical profession of your city, and environments, is cordially invited to attend, and to honor our distinguished guest.

The subject to be presented, and the eminence of the essayist, make this occasion one of the greatest importance and interest. We ask your hearty co-operation, and beg of you to give this announcement the publicity, that it merits.

For the committee,

(Signed) Robert Luedeking,
Chairman.

Served Him Right.—Scene:—A drug store. Woman (a prospective customer) enters.

Woman—"Give me a bottle of Squantum's cod liver oil."

Druggist—"Yes, madam. Here is a bottle" (wrapping same up). "This is the cod liver oil you want. It is no Squantum's but then it is just as good and being made by ourselves we know what is in it."

Woman (takes bottle and puts a button on the counter)—"Here is your pay. It is a perfect substitute for money and is just as good and much more useful. A fair exchange is no robbery. Thank you. Good day."—(Ex.)

BOOK REVIEWS

The Principles and Practice of Bandaging. By Gwilym G. Davis, M. D., University of Pennsylvania and Göttingen; Member of the Royal College of Surgeons, England; Assistant Professor of Applied Anatomy, University of Pennsylvania; Surgeon to the Episcopal, St. Joseph's and Orthopædic Hospitals. Illustrated with Original Drawings by the Author. Pages, 146. Price, Cloth, \$1.50, net. P. Blakiston's Son & Co., Publishers, 1012 Walnut St., Philadelphia, Pa.

Davis tells his reader in this book of his just what it is necessary for him to know in order to be able to bandage a patient in any part of his anatomy. The author's familiarity with general surgery and his long work as an instructor admirably fit him for speaking with authority on this important subject. The book is eminently practical and the illustrations are remarkable in that they furnish an unerring guide to the text—something that we fear all illustrations for medical works do not entirely succeed in doing. The author's cleverness with his pencil as well as his pen has insured the book competent accompanying illustrations and a reading public that has long had to contend with more or less inferior specimens of the illustrator's art will gratefully thank Dr. Davis. The drawings are thoroughly practical and show just what the observer wants to know—how the bandage is to be prepared, how applied and how secured.

For so small a work, the book is remarkably exhaustive. Its conciseness is aided by its sensible division into three parts, comprising the roller bandages, the tailed bandages or slings and the handkerchief bandages. Methods of preparation are gone into with sufficient

detail to furnish proper guidance, while the methods of application, for both the fundamental and the special bandages, are worthy of the highest praise. For the price of the book, the purchaser is practically assured of the means for providing a bandage for any condition that may present itself in his practice, however novel or out of the way the injury may be. It is a thoroughly good book, well written, well illustrated and well published. It should meet with the enthusiasm of the profession and should moreover find a ready sale among a not inconsiderable portion of the laity.

A Physician's Practical Gynecology. By W. O. Henry, M. D., Omaha, Neb., Professor of Gynecology in the Creighton Medical College. First Edition; Pages, 226, five full-page Illustrations and 61 Illustrations in the Text. Price, Cloth, \$2.00. The Review Press, Publishers, Lincoln, Neb.

As may readily be inferred from the comparatively small size of this book, only the essentials have a place in it and each division of the work is treated of in the shortest manner consistent with a reasonably full explanation. The style is terse and crisp and the book is intended as a concise and convenient guide to the student and to the general practitioner. The ordinary gynecological diseases are mentioned and their diagnosis laid out for the benefit of the general practitioner of medicine, to whom, as the author points out, these cases first come for treatment.

Brevity of text is secured by the expedient of dividing each general consideration into sub-heads, and treating each briefly. Dr. Henry lays much of the responsibility for the prevalence of conditions requiring gynecological treatment at the door of the mothers of families, whom he accuses of not giving proper parental care to their daughters, either

from the mental or the physical side. He has some good things to say on the subject of the dangers of preventing conception and he denounces criminal abortion in unmistakable terms. He takes especial pains to point out the dangers that arise from lack of proper care of the woman during confinement and strongly recommends being over-careful and requiring the mother to keep her bed longer than it is absolutely necessary rather than permitting her to get up too soon. The whole book leans toward conservatism and care and contains many a helpful hint as to the best methods to pursue in gynecological cases. For compactness, it equals anything of the kind that we have seen and its price puts it within the reach of every student.

The book is quite fully illustrated, with cuts taken from the works of Thomas and Munde, and Garrigues.

Massage and the Original Swedish Movements. Their Application to Various Diseases of the Body. By Kurre W. Ostrom, from the Royal University of Upsala, Sweden. Fifth Edition, Revised and Enlarged, with 115 Illustrations. Pages, 173. Price, Cloth, \$1.00, net. P. Blakiston's Son & Co., Publishers, 1012 Walnut St., Philadelphia, Pa.

Those who are interested in the study of massage and the Swedish movements in their relation to the alleviation of suffering and the amelioration of certain conditions will find practically what they want in Ostrom's book, which, though short, covers the ground in a satisfactory manner. The author has given numerous lectures and demonstrations of his work before the training schools for nurses in connection with several of the well known hospitals in Philadelphia and the subject matter of this book is made up principally from the material originally contained in these lectures. The fact

that a book of this kind has reached its fifth edition must count for something and the present form of the book is an elaboration of previous issues; the entire text has been revised with a view to bringing it into relation with modern thought on the subject of massage. The book is addressed to the physician who desires to learn the principal points of massage as well as to the professional nurse and the *masseur*.

Due credit is given to Ling, the first creator of a scientific system of massage, and the author makes special reference to what Metzger has been able to do in the matter of introducing new ideas that are acceptable to physicians. A careful exposition of the four Metzger manipulations—*effleurage, frictions, pétissage* and *tapotement*—is given and the Swedish movements are set forth in detail. Naturally, the author is a strong advocate of massage in certain conditions, but he does not make the error of claiming that it is a panacea. The illustrations, though somewhat quaint, are lucid and form a valuable adjunct to the text.

Woolsey's Surgical Anatomy. Applied Surgical Anatomy Regionally Presented, for the Use of Students and Practitioners of Medicine. By George Woolsey, A. B., M. D., Professor of Anatomy and Clinical Surgery in the Cornell University Medical College; Surgeon to Bellevue Hospital, Etc. Octavo, 511 pages, with 125 Illustrations, including 59 full-page plates in black and colors. Cloth, \$5.00, net. Leather, \$6.00, net. Lea Bros. & Co., Publishers, Philadelphia and New York.

Anatomy commands the respect of the student, partially from the difficulties he so frequently encounters in its study, and the practicing surgeon respects it for the indispensable aid which a knowledge of the science renders him in an operation.

For both student and practitioner, Woolsey's book should prove a necessary addition to the library. The former will find in it many difficulties met and surmounted, and the latter will find helpful subject matter along the lines upon which he is working. Anatomy and surgery are closely joined together and the author makes due recognition of this fact, writing always with a view to being practical. He establishes a sound foundation of fact and thereon he builds with care his superstructure of information and suggestion.

There are seven chapters in the book, each one dealing with a general region of the body and taking up each portion of that region in some detail. The author's twelve years of experience as a teacher of anatomy find their expression in the logical and clear arrangement of the text. Prefatorily the author remarks that an original work on the subject of surgical anatomy can no longer be written, owing to the number of excellent works already published by various writers; he adds that "A single author can only hope to contribute a fair proportion of original knowledge and to present a chosen aspect of the science in a clear and practical manner." In Woolsey's case, this hope appears to have been realized.

its sixth edition, and its pages are full of helpful notes on electricity and its manifestations, couched in simple language and therefore readily understood. It contains a number of illustrations, setting forth the general designs of electrical appliances and their uses, together with a short, sensible talk on the nature and the merits of each. For the busy man, who has still something to learn about the use of electricity—and who has not?—this little guide should prove of much interest. Its small size is greatly in its favor and between its covers is a great deal that is instructive and practical.

The differences in the kinds of currents used are pointed out and a general talk is given on the uses of each. In this connection is published a list of the standard treatments for ailments, conciseness being secured by an easily understood system of abbreviation. The book as a whole is not addressed to the specialist who is already familiar with the uses of the different electric currents, but to the beginner who is willing to be told some of the fundamental theories and facts in connection with electrical treatment. All such will find something useful in the book.

The Electro-Therapeutic Guide. By William F. Howe, M. D., Ph. D., M. E., and Homer Clark Bennett, M. D., M. E., Ph. G., D. P. Sixth Edition, Revised and Enlarged. Pages, 171. Price, Cloth, \$1.00. Published by the Literary Department of the National College of Electro-Therapeutics, Lima, Ohio, 1902.

Brevity and conciseness characterize this handy little guide, which is designed for the instruction of the physician who is making use of any form of electrical appliance, from a small battery to a static machine. Its popularity is evidenced by the fact that it is already in

The Composite Man, as Comprehended in Fourteen Anatomical Impersonations. By E. H. Pratt, A. M., M. D., LL.D. Third Edition. Pages, 233. Price, Cloth, \$1.50. The New Age Publishing House, Publishers, 100 State St., Chicago.

This little book is apparently intended as a text-book for schools, to serve as a means for teaching something about the human organism to children. The language sometimes about the human organism to children. The language is well calculated for this purpose, being simple and discursive in style, dropping hints here and there that young people would

be quick to pick up and remember more definitely than they would if the same information were to be brought to them in some cut-and-dried fashion. Fourteen plates, full-page, are published and the text speaks in an impersonation of the individual that is supposed to be talking. There are the bony man, the muscular man, the arterial man, and so on, each plate showing the human frame as it would appear if each system could exist independent of the other. The words of each figure in the impersonation are jocose and humorous, while they carry with them considerable information.

It is an entertaining little book, which has already met with kindly encouragement from a large number of its readers and its introduction into several schools will undoubtedly do much to still further popularize it with the public in general. Many physicians have indorsed it.

Electro - Therapeutics, Radiography, Thermo and Hydro-Therapeutics are practically and thoroughly covered in the Journal of Advanced Therapeutics (800 pages, issued monthly, \$3.00 per year.)

The reader is invited to join the "Founders" Club, and to all who order during 1902 the price is \$2.00 for the first and each succeeding year. It is only requisite that you address following order to "Advanced Therapeutics," 156 Fifth Ave., New York. Send me until countermanded (to Dec., 1902, free) the journal commencing Jan., 1903, per year \$2.00, for which I will pay at the close of the year.

Paris Against Tuberculosis.—The fight against tuberculosis is being carried on vigorously in Paris. The Society for the Prevention of Tuberculosis has obtained permission to have printed on the back of all paper used for prescriptions in the Paris hospitals a detailed description of the symptoms and treatment of tuberculosis. It is hoped always to keep before the poor of the city, especially those suffering from illness, the dangers of the dread disease.—(*Philadelphia Medical Journal*.)

THE OLD OAKEN BUCKET. A HYGIENIC VIEW.

With what anguish of mind I remember my childhood,

Recalled in the light of a knowledge since gained,
The malarious farm, the wet fungus-grown wild-
wood;

The chills then contracted that since have re-
mained;

The scum-covered duck-pond, the pig-sty close by
it,

The ditch where the sour-smelling house drainage
fell,

The damp, shaded dwelling, the foul barnyard
nigh it—

But worse than all else that terrible well,
And the old oaken bucket, the mold-crusted bucket,
The moss-covered bucket that hung in the well.

Just think of it! Moss on the vessel that lifted
The water I drank in the days called to mind;

Ere I knew what professors and scientists gifted
In the waters of wells by analysis find;

The rotting wood fiber, the oxid of iron,
The algae, the frog of unusual size,

The water, impure as the verses of Byron,
Are things I remember with tears in my eyes.

And to tell the sad truth—tho' I shudder to think
of it—

I considered that water uncommonly dear,
And often at noon, when I went there to drink it,
I enjoyed it as much as I now enjoy beer.

How ardent I seized it with hands that were grimy,
And quick to the mud-covered bottom it fell,
Then reeking with nitrates and nitrites, and slimy
With matter organic it rose from the well.

Oh, had I but realized in time to avoid them—
The dangers that lurked in that pestilent draft—
I'd have tested for organic germs and destroyed
them—

With potassic permanganate ere I had quaffed.
Or perchance I'd have boiled it, and afterward
strained it

Through filters of charcoal and gravel combined;
Or, after distilling, condensed, and regained it
In potable form, with its filth left behind.

How little I knew of the enteric fever
Which lurked in the water I ventured to drink,
But since I've become a devoted believer
In the teachings of science, I shudder to think.
And now, far removed from the scenes I'm
describing,

The story of warning to others I tell,
As memory reverts to my youthful imbibing
And I gag at the thought of that horrible well,
And the old oaken bucket, the fungus-grown
bucket—

In fact, the slop bucket—that hung in the well.

(J. C. Bayles in Merck's Archives.)

Sincere Gratitude.—“Dear Doctor—When I began using your hair medicine three months ago you assured me that my hair would not trouble me much longer. I take pleasure in stating that you spoke the truth. Could you give me the address of a good wig maker?”—(*Baltimore American*.)

DETROIT MEDICAL JOURNAL

ORIGINAL ARTICLES

GYNECOLOGY AND ABDOMINAL SURGERY FROM THE STANDPOINT OF THE GENERAL PRACTITIONER.*

BY WM. F. METCALF, M. D.,
Detroit, Mich.

I am not so many years removed from the general practice of medicine that I have forgotten the multifarious duties of the family doctor, his aspirations, burdens and discouragements. He has the confidence of the people whom he treats and has opportunity, in fact is often importuned, to do for them everything, from the delivery of a baby to the extraction of a cataract. His greatest problem is the recognition of his own limitations. His desire, like that of other human beings, is to get the greatest satisfaction or happiness possible, to live long and be honored by the community. It is not the steady work during reasonable hours that wears him out, but the worry that comes from imperfect doing. The life and health of the individual are too sacred to be jeopardized by sins of omission and commission upon the part of his chosen attendants. The consciousness, on the

part of the physician, of his own incapacity to meet in the best way all conditions which confront him, has given birth to numerous specialties. As may be observed, in tracing development in all departments of activity, the thought of the masses swings from one extreme to the other and just at the present the specialist is being extolled at the expense of the family doctor. We are beginning, however, to hear rumblings of dissatisfaction and protestation from the public. They really do not know whom to call to treat the ordinary ills of life, their family physician having become a specialist. The greatest opportunity is now afforded broadly-educated physicians, who are thoroughly alive to the newer methods, and who are able to instruct people in better ways of living, who recognize the limitations of drugs, who have no prejudices in favor of sect or cult but welcome every useful remedial means, believing that a part is never greater than the whole, as apparently do members of the various 'pathies. For obvious reasons, the man whose field is so great cannot do operative gynecology and abdominal

*Read before the Wayne County Medical Society,
September 25, 1902.

surgery well; it behooves him then not to attempt it, his interest being identical with that of his patient. Good intentions cannot modify results in this special surgery; indifferent work reflects discredit not only upon him who does it but upon the whole profession. Happy is he who applies himself to the work for which he is adapted by nature, and damned is he who does not find his place. There will always be different grades of workmanship in every department of life; there will always be fiddlers and violinists, one class being as necessary as the other, and the public does not suffer, provided each keeps his place. The physician who enters this field of surgery without special preparation is more dangerous than he who imposes upon his patient by indefinite tampon incantations.

The family doctor should so guard his patient's interest that necessity for the employment of the gynecologist be reduced to a minimum. He should be a careful, clean obstetrician. He should repair immediately lacerations of the perineum and advise examination of the cervix uteri within two months of the accouchement, and, if appreciable tear is discovered, he should repair it. All this, in the average case, is not difficult surgery because secondary changes have not yet occurred as a result of the injury. He should urge much rest, good food, out-door exercise, and good cheer during lactation. He should examine the girl-baby a few weeks later and free the hood of the clitoris if necessary. He should advise the mother in relation to her daughter's education regarding beginning menstruation, the importance of avoiding cold baths, undue exertion and exposure at such times, the preparation of sterile pads as napkins to absorb the discharges that infection may not gain access to the organs made more vulnerable by the periodic congestion. He should advise against extreme mental application and sedentary habits during

the daughter's development, and urge that her naturally beautiful form be not distorted by tight lacing and that her graceful step and carriage be not destroyed through the wearing of high-heeled shoes with pointed toes. These meaningful suggestions from the physician will not be heeded, however, and the majority of patients in physicians' offices will continue to be women supposedly suffering from "female weakness." What shall the general practitioner do with them? He should first inquire carefully into their histories, resort to the aid of modern laboratory methods, thereby determining whether they are suffering from organic kidney lesion, anæmia, malaria, auto-intoxication, chlorosis, or impaired secretion and defective elimination. The laboratory findings, together with the knowledge gained by careful physical examination, and a consideration of the domestic relations and environment of the patient, of her fears, jealousies, and disappointments, will enable the physician, in a majority of cases, to determine what relation, if any, the abdominal and pelvic lesions found may bear to the symptoms from which the patient wishes to be relieved. The student cannot pass over paragraphs which he does not understand; the physician, to be happy, must read his patient like an open book, or at least think he does. A great aid in the development of method and order is the taking of histories and the recording of findings. It is absolutely essential to the best work.

I do not wish you to infer that I think examination of the pelvis and abdomen essential in all cases. In the majority sufficient explanation of the suffering will be found without resorting to this examination, which is so much dreaded by many women; but it is neither fair to the patient nor profitable for the doctor to continue the giving of drugs for symptoms which do not readily yield. It will

pay him to be firm in what he thinks his duty, leaving it to the patient to continue or discontinue his services as she wishes.

You will pardon me if I refer to the method of examination. If you assume the responsibility of making an examination, it should be thorough; every organ below the diaphragm should be palpated if possible and their positions outlined. In many cases the prone position is satisfactory and less embarrassing, when the patient is covered with a sheet. In other cases accurate information can be obtained only by examination made while the patient is standing. As great care regarding asepsis should be taken in these examinations as would be necessary to insure healing by first intention in incised wounds. Every instrument should be sterilized by boiling. If digital examination is made in the vagina, the hands should be re-sterilized before inserting the finger into the rectum. Poison may be implanted into one cavity from another in the same patient by criminal taste. What affection is more distressing to the patient or more difficult to treat than gonorrhœal ulceration of the rectum? It will not do, in this age, to wipe your finger with your coat-tail and stick it into another cavity. It makes me shudder to think of the criminal carelessness of some men who have licenses to infect. I have seen professors and teachers in reputable medical colleges make vaginal examinations without washing their hands. I have felt like calling the police. What one of you would permit his wife or sister or daughter to be subjected to the dangers of such abominable carelessness? And do not women who trust their well-being to you deserve your protection for their confidence? It might seem to this Society in bad form and unnecessary to speak of asepsis, but I recently saw a graduate in medicine, who had heard asepsis talked month after month and year after year,

after sterilizing his hands to assist in a minor operation, take sterile gauze from a sterile container and cut it with scissors upon his knee—and his trousers were not even new.

Some of the symptoms, which singly or in varied association, when persistent, point to necessity for examination of the genito-urinary tract and rectum are:—Discomfort in the top and back of the head, aching in the sacrum, discomfort in the lower abdomen, frequency of micturition. (In many cases hyperæmia of the vesical trigone is caused by fissure of the rectum or by internal hemorrhoids located in the anterior part of the rectum.) Tympanites, flatulence, constipation, continuous or alternating with diarrhoea, nausea, sensitive breasts, the various neuralgias, continuous exhaustion regardless of conditions of rest, mental perturbation, marked loss of weight, marginal eczema, and tic of the orbicular muscles are more than suggestive; and profuse leucorrhœa, dysmenorrhœa in its varied forms, excessive or diminished flow, or irregular hemorrhage, especially at the time of the menopause, may, one or all, become imperative indications. In short, the human body must be thought of as an organism and treated as such.

It should be considered malpractice to continue to persist in internal medication exclusively when beneficial results are not apparent. In such cases the attendant's duty to the patient is not only to advise but to insist upon permission to make careful examination. Treat your patient according to your best judgment or let her seek advice elsewhere. If she does not admire you for this manifestation of integrity and interest in her welfare, you do not want her as a patient.

The general practitioner may properly curette the endometrium for the purpose of laboratory diagnosis and in cases where curetting only is necessary, provided he has become sufficiently familiar

with the making of physical examinations to recognize the contra-indications. It should not be done in the office however. The patient should be anæsthetized and should be where she may remain in bed for several days. Thorough curetting should never be done without giving recognition to the general surgical principle of drainage, by thorough dilation of the os uteri. I am speaking now of thorough curetting; of course in the office and without anæsthesia, a piece may be curetted or cut from the cervix uteri, under proper antiseptic precautions, for purposes of examination.

In the majority of cases, the presence of internal hemorrhoids cannot be determined by digital exploration. Ocular inspection of the pile-bearing area, by the aid of a speculum is necessary. Anæsthesia is not required.

The discovery of movable kidney does not necessarily mean that operation for its fixation is advisable. The majority of cases of movable kidney do not suffer therefrom.

When there is tension of muscle and tenderness over the region of the gall-bladder and pain upon deep inspiration, or tension of muscle in the region of the appendix, or severe pain in the region of the uterine appendages, followed by symptoms of shock, there should be no delay in urging consultation. Surgical intervention may not be advisable at the time but someone should share with you the responsibility of advising delay. Establish for yourself the reputation of never allowing the dangerous stage in any affection to be reached without calling counsel. Intelligent people appreciate a frank man who doesn't know everything. They look upon their family physician as a general adviser, and one who, when special difficulties arise, will recommend those with special skill in the treatment of the particular affection in question. It may be an oculist, a general sur-

geon, a minister, or a divorce-lawyer, that is needed. The general practitioner constitutes a "Department of the Whole."

I have heard that some doctors gain a livelihood by posing as "conservative." They do not believe in surgery. They find numerous cases of "neurasthenia" and when death approaches they make a brilliant diagnosis of some rare, incurable malady—perhaps "septic endocarditis." They never urge the holding of autopsies; the diagnosis is "too evident."

Long-continued treatment to "reduce subinvolution of the cervix uteri" and to "condition the parts" preparatory to trachelorrhaphy or other repair operation is unnecessary. It is of course advantageous to have the vaginal mucous membrane as clean as possible. This may be accomplished in two or three days by tamponning with cotton saturated with ten per cent. ichthyl in glycerine or with boro-glyceride or other antiseptic. A tampon of wool, covered with cotton, may be preferable, since it is more resili-ent. The dilatation of the vaginal passage has also the advantage of mechanically cleansing it by dilating the sulci. Time enough also is required to empty and disinfect the alimentary canal. Longer treatment is in the majority of cases unwarrantable for local conditions. Treatment for inflammatory conditions are, with greater advantage, given after repair operations; seldom, however, are such treatments required.

Few general practitioners should attempt the restoration of pelvic floors, trachelorrhaphy, or amputation of the cervix in cases requiring secondary operations. These, in a majority of cases are most difficult *special* surgery. The one who attempts such operations should be so thoroughly familiar with this special work that he can determine the condition of the uterine appendages, the degrees of malposition, and the best methods of restoration; whether the position

and condition of the organ will justify amputation of a diseased cervix or whether all the cicatrix can be removed, leaving a uniformly dilatable canal and preserving the cervix. He must know what muscles are broken in the perineal floor as well as the simplest method of restoration. And every case must be handled according to conditions found only in this particular case, if permanent results are to be secured. This department of work has so developed that complicated methods are giving way to simple ones—methods of mechanics—possible only to those familiar with the structures and skilled with their tools.

In conclusion I wish to make the statement that, in my opinion, the man who aspires to high standing in the profession as a general practitioner should be present at as many surgical operations and autopsies as possible, should ascertain the symptoms for which the operation is done, should observe the gross pathologic changes in the tissues, should see the corresponding microscopic changes in the laboratory and should inquire into the immediate and remote results of the operation itself.

636 Woodward Avenue.

Differential Diagnosis of Acute Rheumatism.—In briefly considering the differential diagnosis of acute rheumatism, I want to mention: (1) Acute gonorrhreal arthritis, which may be multiple, but is more often monarticular, caused by the gonococcus and staphylococcus. It does not react upon salicylates, a helpful moment for diagnosis if the patient's previous history be obscure or cannot be obtained. This form of arthritis is of rather frequent occurrence. I believe it to be a fact that a slight trauma to a joint that had once been the seat of rheumatism can stir up again a rheumatic arthritis, but I have also the records of two cases of persons who, having had acute articular rheumatism some years before

contracting gonorrhea, soon after infection presented the symptom-complex of subacute multiple arthritis with effusion which yielded to salicylates and salol, though rather slowly. These cases, in my opinion, were not gonorrhreal but rheumatic arthritis plus gonorrhea.

(2) Septic arthritis, puerperal or otherwise, of streptococcus infection, is generally purulent.

(3) The secondary multiple arthritis of acute infectious diseases, in scarlatina, dysentery, cerebro-spinal meningitis, perhaps also in rare cases of severe syphilis, will be recognized by careful examination of the history of the case.

(4) Last year I had a case of multiple neuritis in my clinic concerning upper and lower limbs which had much resemblance to acute rheumatism so far as pain and tenderness in the joints and limbs were concerned, and some periarticular swelling; but then, there was the paralytic lameness, etc., which soon established the diagnosis. In looking up authorities at that time I found that no mention was made of multiple neuritis in the subject of differential diagnosis of rheumatism.

(5) Acute osteomyelitis and necrosis of bone may be multiple and have been mistaken for acute rheumatism. But the disease concerns the shaft of the bone and causes very great constitutional disturbance.

(6) Gout and acute rheumatism will not be easily confounded when the gouty attack is of the classic kind. It is not quite so easy when we have to deal with a case of multiple uric arthritis with periarticular swelling, exquisite tenderness and fever. In the few cases of this kind which I attended, a diligent search for subcutaneous deposits of urates around the joints has been rewarded by finding such, however small, and proved helpful in making a previously doubtful diagnosis certain.—(Dr. Leonard Weber, in *Medical News*).

VIRCHOW AS A TEACHER.*

BY MAX BALLIN M. D.,
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When Virchow celebrated his eightieth birthday on October 13, 1901, delegates from all the civilized countries of the globe went to Berlin to join in the congratulation and celebration tendered to the great scientist who on September 5, 1902, departed from our midst. Bacelli, of Italy, V. Cornil, of Paris, Pye Smith, of London, Jacobi, of New York, and many others made addresses concerning the influence that Virchow had had on the development of medicine in their respective countries. On the programme of this celebration, such titles might be noted as: "Virchow and Russian Medicine"; "Virchow and Swedish Pathology"; "Virchow and American Medicine"; "The Influence of Virchow on Pathology in England", and so on. Every one of the representatives, themselves illustrious men, willingly and thankfully praised Virchow for the share he had taken in the development of medicine in all their countries. Stockvis, of Amsterdam, on this occasion called Virchow, "*Communis totius orbis praeceptor*", of pathologic anatomy—the teacher of pathology for the whole world, and no doubt, as a teacher, Virchow's influence was not limited to the comparatively few pupils who enjoyed the benefits of his personal instruction at Würzburg and Berlin, but through his fundamental works on Cellular Pathology and Tumors, his teachings became the property of the whole world. But this part of Virchow's teaching to the whole medical world was fully and ably glorified by the previous speakers; I shall confine my remarks to Virchow as a teacher in personal contact with his students.

I fully appreciate the honor that, through the kind invitation of you, Mr. Chairman, I am allowed to say a few words this evening in honor of Virchow,

the benefit of whose personal instruction I was glad to enjoy for several years. Consider this a small tribute from a thankful pupil to the memory of a great master.

In his lectures, Virchow was a quiet speaker, not a great orator. His sentences were clear and short, and were pronounced without much expression. It was difficult for the beginner to follow, but as soon as one got better acquainted with the topic one fully appreciated the vast experience of the man, the logical way he had of treating the subject and the clearness of his teaching. Virchow always illustrated his lectures by sketches on the blackboard, which, just as his language lacked oratorical flourishes, were not artistic, but a few strokes of the chalk showed clearly what he wished to convey. Many specimens, of which he had collected more than twenty thousand, still further illustrated his remarks.

With special pleasure I recall Virchow's "demonstrative course", as he called it, which I think was considered his best lecture by every one of his pupils. There he demonstrated on the hand of fresh specimens the anatomical changes which a certain disease produced in the body. He trained the students' eyes to recognize these characteristic pathological changes, and then always impressed upon his listeners the necessity of considering only the anatomical facts, visible to the eyes and the microscope and of abstaining from speculative theories, which he held responsible for the long reign of humoral pathology, for iatromechanic, or, as it is now called in the resurrected form, osteopathy, and other sciences and pathies. The findings in the case under consideration Virchow compared with his large experience in similar cases, and thus produced before the mind of the student, on the hand of the dead material, a living picture of the whole anatomical process of the disease.

*Read before the Wayne County Medical Society,
September 18, 1902.

Virchow required from his students a clear and logical understanding of the principles of pathology; he did not want to hear in the examinations reports of rare findings and curiosities, but the student had to show first of all a thorough knowledge of the different pathological processes. Then Virchow, who was also a great linguist, required a grammatically correct expression. Words like "appendicitis", with Latin root and Greek ending, or "catarrhus siccus", dry catarrh, which literally translated would give the paradoxon, "dry downflow", insulted the fine classical feeling of the master, and the student who wished to get smoothly through with his examination did better to avoid these linguistic monstrosities.

In the autopsies, Virchow always impressed upon his pupils the necessity of being thorough and accurate, so that, as he said, even a lawyer could not doubt the finding of a post mortem. His arrangements and instruments for an autopsy remind one by the method and cleanliness of a modern surgical operation. There were always three knives—a large one for skin and gross tissues, a strong one for the cartilages of the ribs, and a fine one for the division of the finer structures; two pails of water, one for receiving the blood and so on from the sponges and the hands, the other for cleaner purposes, testing the heart-valves, et cetera. The student who took the wrong knife for cutting an organ, or who did not hold the knife correctly had a poor show in an examination before Virchow. By being so strict in his methods of handling instruments, Virchow claimed that accidents to the fingers of students, with resulting septic infection, were very rare in his large personal experience. In this way he trained his students not only in clear theoretical knowledge, but also in accurate technique; and by insisting on examinations in a thorough understanding of both, he contributed a great deal to-

ward raising the standard of medical education.

By his own example, Virchow was the best model for his students. He was always accurate and clear in his expression and his actions, whether he prepared a delicate specimen for the microscope or was at the post mortem table; he always acted methodically. He was the most industrious man I have known. Every specimen in his vast collection was known to him and on most of them his own handwriting could be found. This is the more remarkable, when we consider how many duties he performed. I remember a few instances in which Virchow was a few minutes late in entering the lecture-room; one saw that he had hastened to be on time. But in a few moments he began to speak in his quiet way, and seemed to be only the pathologist. His late coming would have appeared merely accidental had not the daily papers afterward announced that the same man who had delivered in the class-room a highly scientific, quiet lecture on pathology had, only an hour before, had some hot political dispute with Bismarck or other political leaders.

With all his scientific, social and political duties, Virchow always had time to listen to the woes of his pupils, assisted them by advice and often helped those in need by a remittance of their lecture-fees and by other charities. He never showed partiality to his pupils on account of their social position, their race or creed, as I am sorry to say men even in high scientific standing in the Fatherland sometimes do. Virchow judged his pupils only according to their abilities.

So we find in Virchow, the teacher, the qualities that enabled him to do the immense work that he has performed. He was industrious, methodical, always seeking for facts by which he might come nearer to the truth, and charitable toward human suffering. If any further proof of

his success be needed, let us look for a moment at the long list of his pupils who have a good name in our profession. There is Recklinghausen, famous for his researches on the process of inflammation; Cohnheim, known for his ingenious theory on the origin of tumors from embryologic enclosures; Ponfick, Orth, Langerhans, Hanseman, Liebreich and many others who were assistants to Virchow. But his memory will last longer than all his pupils will live, his name will be known as long as there is a medical profession. To speak with Horatius: "*Ex-egit monument' aere perennius*". With his works and his teachings, he has built for himself a monument which will last longer than iron statues.

271 Woodward Avenue.

How Iowa Looks at It.—The July number of the Iowa *Health Bulletin* contains an announcement which on first sight is somewhat amusing. "The next examination of physicians and osteopaths will be held," etc. The state has definitely determined the status of the osteopath. Elsewhere in the *Bulletin* is given the requirements of the law of April 8, 1902, and put into effect July 4. Examinations will be held at the same place, time, and in the same manner that physicians are examined, the same questions being used and the same average being required to pass. The branches required at present are anatomy and histology, chemistry, obstetrics and gynecology, pathology, and physiology. The penalty for practicing without a certificate is the same as for practicing medicine.—(*American Medicine*.)

Rough on the Toads.—A prescription for the cure of small-pox in England in 1700 has recently come to light. It reads: "Take thirty to forty live toads and burn them to cinders in a new pot; then crush them into a fine black powder. Dose for small-pox, three ounces."—(*Colorado Medical Journal*.)

BENEFITS RESULTING FROM HIS PUBLIC CAREER AND STATESMANSHIP.*

BY J. J. MULHERON, M. D.,
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I have been allotted the difficult task of compressing into a ten-minute paper Virchow's claims to distinction as a "Public Benefactor." To fully present these claims would require volumes and oblige me to trench freely on the field to be covered by those who will present him as a scientist. For certainly there is no benefaction to humanity to compare with those growing out of a revelation of the mysteries of nature. In the blind acquiescence of the individual to the immutable laws which govern his origin and control his existence, man occupies common ground with all the other forms of animal life. It is the knowledge of these laws which raises him to a higher plane and endows him with the means of progression. Himself the culmination of evolution, a knowledge of the processes through which he was developed places him in harmony with the great plan. Herein is his greatest achievement and his greatest benefactor is he who touches the hidden springs whence emanates a knowledge of the mysteries.

But Virchow was not only a great scientist. He was interested in all things pertaining to the welfare of mankind. He shone forth as the man true to the light which he received. He was the apostle of independent and original thought, the man whose creed was circumscribed by the demonstrable. He had the courage to withhold his approval from what he could not understand. In the proper and unrestricted meaning of that much-abused word, he was an agnostic. Generous in his criticism of the honest convictions of others, he was, however, dominated by no man's dictum. Much in medicine had come down to his time with

*Read before the Wayne County Medical Society, September 18, 1902.

no better foundation than ancient authority. He overthrew all this and eliminated it from the fabric. If he failed to accept a statement it was because his mental constitution forbade it. And herein lies the glory of the scientist. Virchow's example is an inspiration to the honest, intelligent thought which alone can secure progress. No mere name attracted him and the theories of neither Haeckel nor Koch were included in his creed. He could not believe in mere hypothesis. The ignorant unbeliever is not to be tolerated, but without intelligent doubt the mind would crystallize.

With the possible exception of Bacon's, Virchow's was the most versatile mind of any age. A profound and many-sided scientist, a luminous philosopher, an erudite literateur, a great linguist, a hard-working politician, what a rebuke is the life which has just closed to the plea of "lack of time", which we are wont to urge as an excuse for our not interesting ourselves in matters which should engage our attention.

It was my privilege during the summer of 1898 to attend some of Virchow's demonstrations before his class in *Charité*. The personality of the man was one of my greatest surprises. Of a frame by no means robust, here was a man during the heated term, when most workers seek their vacation, and at an age when most men are content to withdraw from active affairs, busily engaged at the life-work which will make his fame go down resounding through the ages. Virchow has left behind him an illustration of what may be accomplished through concentrated energy, fixedness of purpose, directness of application and sustained endeavor. His example in these directions is in itself a priceless legacy. Truly, in summing up his claims to recognition as a public benefactor this example may not be overlooked.

While German by birth and training

and of unimpeachable patriotism, Virchow belonged no more to the Fatherland than to the world. His science knew no geographical boundaries. When, during the intense feeling against France, incident to the war of 1870, he was urged to sever his connection with the scientific associations of that country the serene philosopher refused to do so. He was, moreover, a scathing critic of everything in his own country which did not conform to his estimate of real value. He was particularly severe on the literary style affected by many of his contemporaries. His own writings are models of terse, pure German and contain none of those involved sentences which make the writings of so many German authors so difficult of comprehension by the foreigner.

While Virchow's prominence in history will be grounded on the foundations which he laid so broad and deep as a scientist, the land of his nativity and the city of his adoption will hold in grateful memory his services in their behalf as a legislator and as an administrator of municipal functions. Despite his life-long enrapture in science he had an inclination to politics. As a young man he was involved in the fiasco of 1848. He had just settled in Berlin and on being obliged to leave Prussia, he took up his residence in Wurzburg, Bavaria. His work in the University there soon attracted attention and his political disabilities were removed to permit of his return to the University of Berlin in 1856, where he was installed professor of Pathological Anatomy and director of the newly established Pathological Institute. In 1859 he became a City Councillor of Berlin, in which capacity he served continuously for forty-two years. In 1862 he was elected to the Prussian Chamber, which capacity he filled to the day of his death. From 1880 to 1893 he was also a member of the Reichstag, or Imperial

Parliament. That he could simultaneously fill these three offices and at the same time carry on his work in histology, pathology, anthropology and literature is well-nigh incredible. He had, however, the firm conviction that the good citizen owes it to the state not to be indifferent to its politics and that it is not conducive to the public weal to allow the mere politician untrammeled sway in enacting laws affecting vital interests. He was a radical in politics and naturally came in conflict with the ruling power. He incurred the antagonism of Bismarck and the feeling became so acute that the "man of blood and iron" challenged him to duel. The intercession of friends, however, prevented their meeting at the points of their swords. He was a man of the masses, as distinct from the classes. "To crook the pregnant hinges of the knee, that thrift might follow fawning", was, of course, impossible to a man of his calibre. The independence and honesty of thought which he brought with him from the laboratory found uncongenial environment in conditions so largely influenced by the doctrine of the divine right of kings. To such a mind the only right is that based on the eternal principles of justice. In the Reichstag he was one of the founders of the *Fortschrittspartei* which subsequently merged into the Liberal (or free thought) party. Although his lack of sympathy with assumed authority made him *persona non grata* at court, his unquestioned honesty and great ability maintained for him a respect and deference which would not have been accorded a man of less pronounced worth. He had none of the pyrotechnic properties which we in this country are so wont to associate with great statesmanship, but his standards were high and his grasp of the subject in hand was characteristic of the plodding student. His extreme radicalism lost for him for a time the rectorship of the University of Berlin, and it was a glorious

day for him when in 1892 the position was restored to him without his being obliged in the least to retract his political views. He was Chairman of the Committee on Finance and is accredited with being the founder of the present constitutional budget system of Prussia. The German vaccination laws, the laws for the inspection of foods, for the suppression of epidemics and those for the regulation of fishing are all of his creation. In his capacity as Councillor of Berlin, Virchow's services to the municipality were in themselves enough to win for him enduring fame. He originated the system of canals and sewers for which Berlin is famous. The difficulties in the way of securing efficient drainage and disposal of sewage in a city built on a level plane required engineering ability of a high order for their solution. The system of disinfection employed in that city is his, as are also those of the hygiene of the schools and the regulation of its lazarettos. His researches into the matter of diet and the system which he established for the exercise of the children in the schools further displayed his versatility. The work of this wonderful man is one of the marvels of the age. Years before his death it was said that at Virchow's death four men would die. In medicine we have the eras of Galen, Vesalius, Harvey, Hunter, Lister and Virchow, but the greatest of these is that of Virchow. He gave the trend to the greatest age in medicine, perfecting the work whose foundations were laid by John Hunter. In anthropology he was chief. In public medicine his work stands unequalled. As a politician his record is sufficient to embalm his name in the history of his country. Verily, not only a four-fold man, but a four-fold giant has dropped his mantle to join the innumerable caravan. Who has been left behind on whom that mantle may worthily fall?

BENEFIT ACCRUING TO INTERNAL MEDICINE.*

BY JOHANN FLINTERMANN, M. D.,
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Not a whole year ago, on the 13th day of October, 1901, the 80th birthday of Rudolph Virchow was celebrated in the capital of the German empire. Delegations from medical societies in all parts of Virchow's native land participated in the celebration of this occasion. Civil societies, the representatives of the municipal, the royal and the imperial governments and those from the governments of the different states brought their congratulations and their best wishes to the octogenarian. The representatives of the army joined in the general adoration of the man, who, once a student in the Kaiser Wilhelm's Academy, an institution for the education of military surgeons, had been in the wars of the nation a faithful, untired and zealous worker and counselor. There was no lack of other scientific bodies to express their admiration for the celebrated scientist. Anthropological, ethnological and archaeological societies sent their most able representatives to the city in which Rudolph Virchow had worked, where he had made his discoveries, where he had taught, and whence the scientific world was inspired by his teachings to follow the ways and plans which he had laid out.

Not only the medical profession and the learned bodies of his native land showed this high esteem; from all the civilized nations delegations were sent, who brought addresses of congratulation, expressing in the name of their countries' attitude for his unsurpassed zeal in scientific work and admiration for his life-work and the eminent services he had rendered in his efforts to raise medicine to the standard of a natural science, as a

result of which it is now so regarded and is a branch of the sciences.

Austria's delegate did not hesitate to describe Virchow's influence on the development of medical science in his own country, mentioning that Virchow by his Cellular Pathology had destroyed the bad results of Rokitanski's doctrine of dycrasies and liberated the medical school of Vienna from its nihilism. The delegate pointed with pride to the fact that Virchow was the founder of the Austrian Anthropological Society, and praised his great services in its behalf. France admitted the beneficiary influence Virchow's works had had on the efforts of her great men, Russia acknowledged that her best teachers were pupils of Virchow and that medicine in Russia owed much to him. The delegate from the Netherlands was full of praise for the immense services Virchow had rendered to the development of the study of pathology and pathological anatomy in his country and told how, by means of articles for the Dutch medical journals, written in classical Dutch, and by addresses before the Dutch medical societies on several occasions he had contributed to the best medical literature of his country. He added that the friendship between Virchow and Holland's celebrated authorities had resulted in good work from her greatest medical writers, like Schroeder van der Kolk, Donders and others, and said that Virchow's influence on the medical education of Holland should not be forgotten.

Sweden's delegate addressed Virchow: "If I should try to describe your influence on the medicine and natural sciences in Sweden it would be equal to the task of giving a full description of what you have done in general and what you will accomplish in future; it would be a long chapter in the history of medicine and in the history of civilization. We find this chapter in every work on the history of

medicine; the light which emanates from it is reflected in all scientific and medical researches, not only of our own country but of other nations too. We have for a long time been accustomed to direct our attention to your illustrious career, guided by a genius. What an immense amount of facts you have brought to light! With much skill and with what masterly touch you have brought them into proper relation and have carefully connected them all, opening new ways, conquering, inspiring and leading. Our young people, full of ambition and zeal, flocked to the place where you taught. Under your eyes their first efforts in scientific work were made and they prepared themselves to extend the work of the master."

Denmark and Greece testified through their delegates that Virchow had a deep influence on the development of medical science in their countries. The influence of Virchow on pathology in England was thus described by Pye-Smith, the English author:

"Among the captains of science who have accomplished the great work of developing modern pathology Rudolph Virchow stands conspicuous by his past action. The physiology of morbid processes, not only in their effects on tissues as revealed after death by the scalpel, the microscope and the test-tube, but in their actual working, is laid open by the experimental methods of comparative pathology. The influence of Virchow in England has been exerted in more than one way. Many of our countrymen have, like the writer, enjoyed the benefits of his personal instruction. To many others he is known by his addresses in our country and in our own language before the Royal Society and on other occasions; but, most of all, his influence has been exerted through his famous Archives and his three most important publications—the Cellular Pathology, the Krankhafte Geschwülste and the Gesammelte Abhandlun-

gen. The first and most striking of these made an impression when it was published which may be compared with the wonderful effects produced by the appearance of the Origin of Species. The late Dr. Chance's translation made the cellular pathology familiar to all English-speaking people, and the effect was as wide as it was deep. It will remain a classic.

"We like a scientific man to be learned and Virchow's familiarity with medical literature is more than an ornament; it enables him to appreciate the development of pathology, without which no science can be thoroughly understood, and it has led him to assign the due meed of praise to good work done long ago in other countries than his own."

Guido Bacelli, the celebrated Italian clinicist and bacteriologist, calls Virchow the greatest pathologist and anatomist, *Princeps per orbem celebratissimum*, and dedicated to him his clinical investigation on intravenous injection of bi-chlorate of mercury. The address is in classical Latin and is an acknowledgement of the classic address made in Latin by Virchow on the occasion of the international congress in Rome.

What has Rudolph Virchow been to the medical profession in our country? Are we indebted to him for any influence on the development of pathology and pathological anatomy? Long before Virchow began his career the medical profession of America had already made it self independent of England, except with regard to Brownianism, which for some time captivated even some of our best men. Here in America no natural philosophy or other systems disturbed the logical development of American medicine.

Celebrated men in London, Edinburgh or Paris had among their students young ambitious and talented Americans. In the latter city, Broussais, Magendie, Louis, and Rousseau were among the

men who exerted an influence on our practitioners and on our literature. Numerous instances prove this statement—Jacob Bigelow, who wrote "Flora of Boston and the Surrounding Country", 1814; "Remarks on Military Hospitals, Prevention and Treatment of Diseases among Soldiers", written in 1813, by James Tilton, a work which demonstrates the pernicious influence of hospital treatment and the necessity of open-air treatment; later, the work by J. K. Mitchell on rheumatic pain in spinal disease; Beaumont's classical work on the gastric fistula; Korner's demonstration that the color of cholera stools was due to detached epithelium and that congestion is not so much an active process as it is the result of mechanical impediment in circulation; Alonzo Clark's connection of auscultation and percussion, 1839, and his treatment of peritonitis with large doses of opium, 1841; Carr's explanation of the origin of the crepitus rale in pneumonia, 1842; J. Ware's work on the identity of laryngeal croup with pharyngeal diphtheria; Wendell Holmes on the contagion of puerperal fever, 1842; coccygodynia and its treatment by extirpation of the coccyx, by J. C. Nott. There are a great many others whose contributions to scientific medicine have left an everlasting impression; we should not forget Gross's work in pathology and pathological anatomy which Virchow, on the occasion of a reception given at Virchow's home in honor of Gross when the latter visited Berlin, declared to be a classical exposition of pathological observation.

It is necessary that a man shall be a general practitioner if he wishes by his work to advance the art and science of medicine. Specialists are able to do this only when they are in possession of full knowledge of general medicine. Such was fortunately the case in Europe and America. The surgeons of America, at the time when Virchow's studies and pub-

lications became known, were men engaged in general medical work, who had the advantages of an excellent general education and a wide horizon in medicine. No wonder that Virchow's works found them prepared; to follow his work was a congenial task. The Master, Virchow, was to them a sympathetic man, whose earnest work culminated in finding the ultimate unity from which our deductions should start, who never lost sight of the final aim of all our investigations—the prevention and treatment of the diseases of the single individual and the human race.

Virchow's *Cellular Pathology*, translated into English, had in a short time seven editions in America. The medical journals of America spread the teachings of the Master all over the broad land; the name Virchow became a "household word". His words were translated—as for instance, "The Disadvantages of School" (Jones); "The Technique of Obduction" (John J. Jackson); "The Life of the Trichina" (T. J. Small); "The Infectious Diseases of the Army" (Rufus King Brown). The medical profession of the country became imbued with his teachings and appreciated his importance in relation to modern medicine. During our Civil War, when our ambulance system, our barracks hospitals for the care of the wounded and sick soldiers, and the efforts of our sanitary corps were followed by such excellent results, it was Virchow who did not hold back his unrestricted approval of the humanitarian work of our people. Here he saw the practical fulfillment of duties and wishes of the physicians and the humanitarians.

It would be a serious mistake if I should feel that I were able to describe what Rudolph Virchow has done for internal medicine. We have become acquainted with the importance of the cell in the organism, with the facts that disease is not an entity, not anything foreign to the organ-

ism, and that all processes in disease are subjected to the same laws which govern the processes in a sound body.' The cells and groups of cells (the different organs) are the objects to which we have to direct our attention if we wish to understand life and disease. The normal and the abnormal condition of the cells and cell groups are the objects of our observation. Medicine of today is a branch of science, it is the science of dealing with life in normal and abnormal conditions, and is therefore connected with biology. If we today study the effect of different causes of disease and the symptoms, *on the organism*, it is the condition of the different organs and their power of resistance that we examine. If an organ has become weakened in its struggle for existence by disturbance of nutrition or by weakness inherited from previous generations, this doctrine of disturbed nutrition and of the law of heredity is the etiology, and symptoms of disease must lead us back to the cell, which in itself is an independent organism, a unit, a living individual. If changes in condition of life of the cell take place, the result is change in the whole organism. The cell is, through its material substratum, the bearer of complicated, inherited peculiarities, of the power of resistance, of weakness, and Rudolph Virchow's works and observations caused a radical change in the views of physicians. The practice of medicine was intensely influenced by his discoveries. The change which took place was not so sudden; a good many discussions in societies and journals were needed to destroy doubts as to the truth of Virchow's doctrines, until the fighting of disease was carried out on rational lines, not prejudiced by any old dogmas, only having a starting-point, facts, carefully observed facts. We fight diseases by improving nutrition, by regulating the functions of the nervous system, by bringing the organism under the most favorable

conditions, by looking after the social and economical conditions of life, all with the purpose of increasing the life energy of the cell.

Treatment of diseases, our therapeutic measures, are therefore in the broadest sense based on the principles of cellular pathology. Rudolph Virchow, seeing with a prophetic eye, predicted that we should not fight disease but the cause of the disease and that it should be our chief aim to restore the normal processes of life.

Virchow remained in contact with the practice of medicine. He did not hesitate to leave the lofty heights of pure science; he worked and spoke for the practical application of results gained in the laboratory, always with zeal, skill and not without lasting effect.

Besides his work in the field of internal medicine, Virchow has done a great deal in pleading for popularizing science. He was also in favor of propagating among the people sound knowledge of medical topics. Ignorance and prejudice form an insurmountable obstacle to rational discussion of application of hygienic measures and very often prevent the carrying out of sanitary advices. Virchow's own words are the best expression of his views on the practical side of medicine and his broad humanitarian ideas.

Finally, theory and practice of medicine have to be considered from the standpoint of a humanitarian. The practice of medicine must be the true bearer of humanitarianism, and this is the case just as much where the helping of a single individual is in question as it is when by the practice of medicine one tries to relieve the suffering of whole classes or even of a whole nation. There must be a consciousness that practice and theory have the right of existence only when their aim is to benefit humanity. Their value is not measured by the degree of satisfaction, the pleasant relations and the gain derived from them, but only by the bene-

fit accruing to the human race. For our professional work, there is only one satisfaction that has to guide us—to comfort the sick, to relieve suffering and to heal. The recovery of the patient—that is the essential factor, which must control our actions, that must be the measure by which we value our satisfaction.

Mr. President and members of the Wayne County Medical Society:—We have gathered here tonight to express our deep regret at the death of Rudolph Virchow. When the great man was buried in Berlin, a committee of American physicians attended the funeral, and presented an exquisite wreath of Easter lilies and maidenhair ferns from their countrymen practicing and studying in Berlin, with an inscription testifying to the high esteem of the medical profession of the United States for the well-renowned pathologist, Rudolph Virchow. Our meeting tonight, a thousand miles away from the final resting-place of the illustrious dead, forces upon our mind the thought that such occasions as this memorial meeting unite the nations of the world, for the purpose of promoting the true interest of humanity, to foster culture and encourage morality by an unbounded zeal for scientific work. Let every one of us tonight leave this meeting with the noble intention of doing faithful work, of doing our duty. The immortal hero of modern medicine, whose deeds, works and noble ideas will servive the glory of conquerors on the bloody field of battle, had for his guiding star the plain word, duty. He has gone to his reward. Who will judge, and who express doubt or hope?

"We are unable to pierce the past, the future is hidden from us, but the categorical, imperative call of duty to be performed is with us, the obligation of one and all of us to do our share, and to live up to the highest ethical and æsthetical standard we can formulate, without regard to reward or punishment, and before the worship of every other ideal."

THE COUNTRY DOCTOR.

BY D. L. WALMSLEY, M. D.,
Detroit, Mich.

"Humanum est errare". How true! In undertaking the defense of any one is it not well to ask ourselves, Is it worth while? He who defends his neighbor's wife against the wrath of her husband is liable to get into trouble; yet it is our duty to do right and fear no evil.

I have been induced to pen the following lines in defense of a worthy class of our profession, the general practitioner of the country, who is really and truly the back-bone of the profession, but to whom the city specialist has frequently sneeringly alluded as the *country doctor*. Why the gynecological and other city writers should select the country general practitioner as an object of derision when wishing to write unkind things about their less presumptuous *confrères*, while every city contains many general practitioners, is open for explanation. Such expressions as "Gynecology and the country doctor", "The country doctor vs. the specialist", etc., with insinuations of lack of ability and dirt ill become a favored self-appointed few with no claim to superiority by college training, being graduates of the same college and class as their country brethren, the only claim for specialty work being self-appointed, smacks of egotism of a highly developed degree. Not only egotism, but it is evidence of a lack of the milk of human kindness that should be part and parcel of a well-balanced gentleman, especially so in the profession of medicine and more particularly in dealing with or speaking of a *confrère*, in his presence or in his absence. The profession of medicine can ill afford to speak lightly of its own members; the laity usurp that prerogative, and rather than egg them on in an assumed privilege that should be suppressed each member of our profession should be a model of courteousness to his brother that would

put to shame the laity who forget to do unto others as they would be done by.

May we ask, in all simplicity, wherein the distinction between the city and the country doctor comes in? Is the city man a different class of man? Did he graduate from a specialist college? Are there colleges for every class of specialist? Or are we birds of a feather? I can look back to my college days, and my recollection serves me that more than half of a class of 65 were country boys. The dean of the faculty and four of the nine professors had been country practitioners and two of them came in from country towns to lecture during my course. And I feel like saying of them that they were not behind their city colleagues in ability nor in holding the respect of the class.

Having spent twenty-five years in town and country work and ten in city work I know whereof I speak. Let me say that my experience is in favor of the country man. He is an all-round man. Having no specialist with whom to divide his work, he grows broad and has an all-round practical knowledge which the city general practitioner cannot get, because the latter is beset on all sides by specialists. The country practitioner becomes a self-reliant man, because he has to trust to his own gray cell matter to stand by him in time of difficulty and not the specialists. His practice is varied, covering the great field of general practice. If he is inclined to be studious, the great variety in his field of work makes it more profitable and pleasant and lends enchantment to study, which combined with his varied labor completes a character worthy of an appellation other than *derisive*.

I grant that every man that studies our profession is not by nature intended for it. If it is not his *forte*, he will not be a success in general or *special* practice. Every man is not mentally his fellow's equal. Environment has much to do with re-

sults. The country practitioner has fewer facilities than the city man, but his all-round practical knowledge enables him to accomplish equal results with fewer facilities. The country surgeon will successfully do surgical work that with like facilities in the city would be a failure. I myself have achieved wonderfully successful results from surgical and other work in back-woods huts that under similar conditions in a city I should tremble to attempt. The man who keeps closest to nature, with cleanliness thrown in, with fads and whims excluded, is the man who will meet with success in surgery and the practice of medicine. I am not personally averse to specialty work, nor have I any antipathy to specialists; but I do not approve of a most worthy part of our own profession being lightly or aspersively spoken of, and especially do I detest aspersions from our own profession.

In all seriousness, and with due consideration for all concerned, I do think that specialists should be men who have had at least ten years of active practice, preferably all-round country practice, such a general practice as rounds a man full and plump, thereby guarding against narrowing into a groove and becoming a one-legged man.

The tendency of the present age is for recent graduates to take up specialty work. I think this is a mistake and will be demonstrated to be such before many decades have passed. If this habit becomes general, every branch of the profession will be a specialty, general practitioners will be a thing of the past, every country village will have to be provided with as many specialists as there are branches of our profession in order to cover the field of labor, and the folly of general specializing will be evident. In cities the plan is more feasible, the large population being a helping factor, but the one-legged man will be strongly in evi-

dence before many decades have passed. On the principle of nine men to make a pin, so our patients will have to pass through all the specialists' hands to determine their ailments, no one feeling it professional to treat a case not his own peculiar specialty. The inevitable result—men of one leg and one-cell brains, a complete degeneracy.

"Helloa! Stop that writer. He is a monomaniac". Well, perhaps he is, but remember that a monomaniac is bright on subjects other than his one mania. Let us enumerate a few of the present-day specialists. Brain specialists, eye and ear, nose and throat, chest, stomach, abdominal-gynecological, orificiary, hernial, orthopedic and last, but by no means the least conspicuous, the electrical specialist, with his powerful lightning machine and *bust developer*. There are many minor divisions. Who next? Will some one prophesy the future for the general practitioner? Is any further evidence needed to predict his destiny? Is it necessary to further bury him or heap aspersions upon him?

In a glance backward over the past hundred years, to which, city or country, are we indebted for the introduction of ovariotomy, a primary gynecological specialty? Was the illustrious Ephriam McDowell, M. D., of Danville, Ky., a city specialist or was he a country doctor? In a recent article from the able pen of Dr. William Lane Lowder, of McKinney, Ky., on the passing of the historic McDowell building at Danville, Ky., he says:

"On a bleak and barren December day in 1809, when the woods—the oak, the aspen and the willow—were leafless, and not a thrush had yet essayed to clear the furrowed brow of winter, history tells us that this symbol of alarm, as a sentry perched on the office door of a village surgeon, witnessed the gathering of an excited and angry mob. The sheriff of

the county at the time interfered and effected a compromise, if such it might be called, in which he stated that in case the patient recovered from the effects of the operation, all would be well with him (McDowell); but in case she succumbed to the results of the surgical procedure about to take place, he would be in the hands of a merciless mob. Chill and cheerless must have been the comfort around him.

"The operation was successfully completed; and the wild flowers of sunshine sprang as it were, beneath his boyish tread; opening in advancement, expanding in maturity, and illuminating his pathway with all the richness of luxuriance".

The angry mob had time to reflect and it was not long before the anger of yesterday was changed to the joy of today; and in the place of abuse and death they heaped praises on the head that they had intended for a target. This cool, nervy, all-round accomplished country general practitioner, not daunted by threats of cruelty and death, followed his first with other operations of a like nature—13 in all, of which eight recovered (over 62½ per cent.); and this, too, long before the days of anaesthesia or antiseptics, or trained help, or tissue ligatures, or fixed rules of technique, or sterilizing, or fumigating, or spraying, or any of the more recent fads that count for so little. History tells us that he was *cleanly*, which is of so much import in surgery. Good soap and boiled water, and plenty of them, thoroughly used by all in attendance, and the dangers of infection are reduced to a minimum.

What does history record of the kindly manner in which big guns of the profession in cities treated this distinguished country doctor, when learning of his successful and brilliant operations done in the backwoods of Kentucky? Listen: In 1827, Dr. Johnson, editor of the *London*

Medico-Chirurgical Review, after announcing the results of five cases of ovariotomy, four of which had recovered, says: "There were circumstances in the narrative of the first cases that raised misgivings in our minds, for which uncharitableness we ask pardon of Dr. Ephriam McDowell, of Danville, Ky., and of God". What a noble confession! Would that some of the sneering writers of the present day, who treat of the country doctor, would do likewise. If they were honest with themselves they would; but may we expect it in an age in which the main object, apparently, is to *get there?* honestly, if you can, but *get there.*

While it is human to err, it is also honorable to be prudent.

Notwithstanding, I am still encouraged to believe that the day is not far distant when very many country sections will be supplied with hospital facilities, which will enable the general practitioner to display his greater all-round ability in treating every ailment, thus securing to country people advantages they have a right to enjoy. Let not envy, or malice, or evil thoughts beguile our better judgment.

270 Woodward Avenue.

Castor-Oil in Typhoid.—Dr. C. C. Bass, of Columbia, Miss., reports his experiences in the treatment of typhoid fever with castor-oil. He reports eight cases in which diarrhoea, delirium, and tympanites were prominent symptoms. All were treated by a dose of castor-oil. The author says: "I think any physician will be pretty thoroughly convinced after trying it in one case. Take any case, the severest you may see, and give him a dose of castor-oil every morning and no other medicine whatever. The dose should be large enough to act in four to six hours and should range from 2 teaspoonfuls to 2 tablespoonfuls according to the condition of the bowels. Keep an

accurate record of the temperature, and you will be convinced. At any time during the course of the fever withdraw the oil, and both you and your patient will be convinced. Float the oil in sweet milk in a hot cup and there will be no objection to the taste. It is not very objectionable, however, to typhoid patients, as their sense of taste is very dull."—*New York Medical Journal.*)

Vital Statistics.—The *Clinical Review* says: "Some put it as a fair estimate that not above one per cent. in the medical profession gain more than a day-to-day livelihood." We believe it, and would add that not an overwhelmingly large percentage of the 99 per-cent. make more than a hand-to-mouth livelihood.

Sepsis Treatment.—The *Journal of Obstetrics*, reviewing Wernitz's article on this subject in the *Centralblatt für Gynakologie*, sums it up as follows: Through a rectal tube a warm one-half to one per cent. saline solution is allowed to run gently into the intestine by raising an irrigator in which it is contained. The irrigator is then lowered, allowing the return flow of the fluid. It is then alternately raised and lowered, changing the fluid as it becomes impregnated with fecal material. When the intestine has been cleansed in this way so as to leave its walls free to absorb, the alternate raising and lowering of the irrigator are so timed as to permit more to enter than to flow out. In an hour about one-half to one liter of saline solution will be absorbed, causing marked increase of the quantity of urine, loss of thirst, and dryness of mucous membranes, and profuse perspiration.

Prehistoric.—"It is now over four hundred years since the beginning of the use of mercury in the treatment of syphilis," says the *Clinical Review*. Yes, and now tell us how long it is since the beginning of syphilis.

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

WALTER C. BOYNTON, Manager.

—ISSUED BY—

THE DETROIT MEDICAL JOURNAL CO.,

NOTE.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, to 270 Woodward Avenue. Detroit, Michigan, U. S. A.

DETROIT, MICH., OCTOBER, 1902.

THE WAYNE COUNTY SOCIETY ELECTION.

The election of the Wayne County Medical Society was held in the Fellowcraft Club on the evening of October 2, with the following result: President, Dr. F. B. Tibbals; Vice-President, Dr. C. G. Jennings; Secretary-Treasurer, Dr. Hugh Mulheron; Board of Directors—Dr. Arthur D. Holmes, Dr. Samuel G. Miner, Dr. H. O. Walker, Dr. Samuel Bell and Dr. John E. Clark. It was not to be expected that at a meeting of this kind, the first one after the recent consolidation of the two societies heretofore existing in the city, there would be no rivalry between representatives of both societies to secure the nomination and election of their men; the wonder is that there was not more wire-pulling done than there was. As the matter stands now, everyone is satisfied, and the new officers can look for the hearty support of the entire society. The question of selecting five directors was a difficult one, since more than fifty members received nominations for the office, and it was a matter of some time for the tellers to announce their decision. The large number of nominations made does not suggest much log-rolling, nor does it look as if the "bar'l" had been opened to any extent. There was simply plenty of good directorate timber and the members confessed their perplexity in choosing any one more than another.

There should be very good times ahead for the Wayne County Medical Society. Now that the old-time spirit of emulation between the societies has lost its chief reason for existence, both sides will undoubtedly turn in and help to make the county society forge well up into the front rank of bodies affiliated with the national organization. Wayne County has many good physicians; all of them are not members of the society, but a little energy on the part of those already members will do wonders toward securing a large and a creditable membership. Every practicing physician in good standing in the county is eligible for membership in the society, with the exception of the followers of Hahnemann who hold rigidly to the dogmas of the latter. It is a well known fact that many of the practitioners of homeopathic doctrines do not confine themselves strictly to the teachings of their school, but take what they think is good from all schools. It is possible that the present rule excluding homeopaths from membership in the society may be so changed as to allow many of them to join. In all, it is expected that nearly 500 of the physicians in Wayne county eligible for membership in the society will join it within a short time; this would give plenty of material for work to advance the interests of the society in the councils of the state society and in the national organization of physicians. An index of the interest which is taken in the society is the fact that the meeting of October 2 was the largest of its kind ever held in Wayne county and that it was one of the largest ever held in the state.

Dr. Samuel Bell, the retiring president of the Wayne County Medical Society, made an able address at the meeting. He was strongly in favor of sub-societies, where special work could be carried on by members interested in a given specialty, reports on the work to be made to the larger society from time to time. It is

thought that in this way the interest of the many specialists already members of the Wayne County Society can be maintained in the organization at large, and that the opportunity of presenting notable findings before a large organization will have a stimulating effect on the work of the specialists. It is true that many specialists are already members of special societies, but it is believed that the plan of having smaller societies within the county organization will have a good effect on local work. Dr. Bell also spoke strongly in favor of the plan of dividing the county into districts, in each one of which workers shall be placed to secure a larger membership for the society; it is to be hoped that this plan will be carried out.

The finances of the society were reported to be resting comfortably. There was about \$500 in the treasury to be turned over to Dr. Mulheron, and with the additional dues from members it is expected that a good sum will shortly be on hand for the expenses of the society.

THE VIRCHOW MEMORIAL MEETING.

September 18 was selected as the evening on which the members of the Wayne County Medical Society should meet to do honor to the memory of Rudolph Virchow. Accordingly, at Fellowcraft hall, a large number of the members of the society gathered on the evening of that day to testify by their presence to the honor in which they held the remembrance of the world's foremost pathologist. A peculiarly personal element characterized the reading of the papers, as at least three of those who were down on the programme had been pupils of the great teacher. The papers were heard with close attention and none of the speakers forgot to tell the virtues of the man who has so recently died.

The very nature of the life that Vir-

chow led makes it a somewhat difficult matter to write separately of any one phase of his character. He was so constantly occupied in activities of almost incredible range that his separate branches of study seemed to merge themselves into one working whole. Whether we regard him as a scientist, scholar, political thinker or political doer, we must stand amazed at the work, specialized and general, that he was able to accomplish in his different lines. A few hours' sleep sufficed to renew his giant energy. A little food and drink served as the fuel by which that untiring engine, his mind, was driven to accomplish so much in the interest of mankind. And this interest appears to have been the key-note of Virchow's character. He was always doing kindnesses to the race—gruff and impolitic kindnesses, to be sure, but the world will soon forget his gruffness and lack of policy in the memory of what he could do for mankind. He thought with the poet that "The proper study of mankind is Man", and evidently he set out to study him in all his relations to the social body. First trying to secure for him good health, he went further and showed him how to live, socially, economically and morally. He believed that healthy men with healthy minds could accomplish what they set out to do—and his own life shows us that his theory was, in his own case at least, a tenable one. The accident which was a contributing cause of his death was a deplorable one, all the more so because a man of so many-sided an ability was taken from the world of knowledge at a time when he was still one of its chief figures.

It is with great pleasure that we publish in this number a partial symposium of the Virchow papers read at the meeting last month. In addition to those of Dr. Ballin, Dr. Mulheron and Dr. Flintermann, Dr. Gibbes read a paper on "Benefits Resulting to Science as a Result of

his Microscopic Pathologic Research Work" and Dr. McGraw discussed the subject, "Gross Pathologic Work Pertaining to Tumors".

VACCINATION IN PORTO RICO.

Major Azel Ames, late brigade surgeon U. S. V., commanding the U. S. vaccine corps and director of vaccination, Department of Porto Rico, read an extremely interesting paper on this subject before the Association of Military Surgeons at the national capital last June. The paper has recently been printed in the *Pacific Medical Journal*, and it is interesting reading.

Major Ames cannot speak too highly of the splendid work done by the members of the corps in combating the untoward conditions under which they first had to work, and takes the occasion to pay a high compliment to the medical profession of the United States in civil life, from whose ranks the field and hospital surgeons of the late war were so promptly and successfully recruited. He feels that the *comprehensive, compulsive* vaccination—the italics are his own—of the people of Porto Rico effectively proves that the disease of small-pox can be stamped out among people of any region. The wide-spread success of the preventive measures taken he regards as an object-lesson to the world.

Small-pox was prevalent in all of the outlying districts of Porto Rico at the time the American army landed on the island in July, 1898, and its presence in the chief centres was checked only by the most herculean efforts on the part of the military surgeons. People who had been exposed to the disease were constantly passing to and from the towns, carrying the disease with them, and there was before the medical department a most serious problem. Nearly a million people were afflicted with variola in 1899; and

under the favorable conditions prevailing, the disease spread with great rapidity.

There were two small farms for the production of bovine lymph, maintained under Spanish municipal contracts, but Major Ames describes their condition as "moribund", when the Americans began to face the problem. How well they laid their plans and how well they were carried out is shown by the fact that within five months from the time the great project was undertaken the disease had been literally driven from the island of Porto Rico.

A vaccine farm was established at the Baths of Coamo, under Major Ames' supervision, and the work began. Over 1,000 head of young cattle were secured, arrangements were made for their maintenance and for the maintenance of the vaccination corps of over 100 men; initial lymph had to be secured from the United States, almost 2,000 miles away, all to secure an output of more than 16,000 charged "points" daily, of which 15,000 were sent daily into the infected districts. In his paper Major Ames alludes to the total absence of the typical vesicles which appear on vaccinated calves in the northern portion of the United States; the entire supply of lymph was secured from the bases of the crusts or cones, which developed in great abundance on the vaccinated cattle. The writer attributes this state of things to the fact that the heads of the cattle were not confined and that the vesicles were broken by their tongues as soon as formed, a process which was aided by the rough grass and underbrush on which they lay. An idea of the large quantities of lymph produced may be gained from the statement that at one time the farms produced the astonishing total of 27,000 double-charged "points" in one day.

The major gives some very interesting findings as the result of his hard experi-

ences. Among others he states most positively that, though syphilis, tuberculosis, elephantiasis and tetanus are common in the island it did not follow that any one of these diseases, or any other disease, bovine or human, was imparted to an individual by the process of vaccination. He adds: "With tetanus so common in the island that 818 cases occurred in seven months of 1900-1901, a single case only (in an infant) occurred after vaccination in 860,000 vaccinations, and this, of course, would have occurred as readily with any abrasion."

The conditions for the actual vaccinating of the people themselves were almost ideal, as abundant military and civil authority was at hand. Major Ames prepared the order issued by General Guy V. Henry, which made the possession of a vaccination certificate a necessity to the people, a prerequisite to employment or pleasure; the vaccinators were besieged by those who wanted to be vaccinated and the article states that when night fell hundreds of people were waiting their turn, camping for the night wherever night found them, so as to be on hand next day. When the pressure was too great, vaccination was continued by lamp-light. The thoroughness of the work and the favorable conditions under which it was done are shown by the high percentage ($87\frac{1}{2}$ per cent.) of successful vaccinations made.

The article concludes as follows: "*Summary.*—In October, 1898, small-pox was endemic in Porto Rico; in December it was epidemic; in January, 1899, it had honey-combed the island; by February there were over 3,000 recent cases, and the disease was spreading at a gallop.

"In February systematic compulsory vaccination, carefully and scientifically conducted and recorded, was begun simultaneously and with pretty equal efficiency in all parts of the island. It was vigorously prosecuted *for four months only*,

till July 1st, when 860,000 vaccinations had been made in a population of about 960,000. Of these $87\frac{1}{2}$ per cent. were successful. The work then ceased, because completed; the disease had practically disappeared; the fuel for it to feed upon had been consumed by the "head-fire" of vaccination. In the two and a half years that have since passed, instead of the former annual average death-rate of 621, the mortality from small-pox has been but two per annum in a population of nearly a million. Can any *honest, intelligent person* doubt in face of these indisputable and easily verified facts, *what it was that in four short months drove small-pox from its wide and long-time reign in the island, and has since kept it out?* *Vaccination alone did it, and will do it effectively, wherever compulsory legislation, properly enforced, secures its benefits to all!*"

EDITORIAL NOTES

The last issue of the *Medical News* prints the statement of facts in connection with the refusal of Judge Arnold, of the Common Pleas Court, to grant a charter to the First Church of Christ (Scientists) in Pennsylvania. The opinion of the judge is well worth quoting and is accordingly given herewith: "The charter applied for in this case covers a double purpose—a church and a business. We have power to grant a charter for a church, but we have no authority to grant a charter for a corporation for profit, that is, a business corporation. That the application is for a charter for a corporation for profit is shown by the statement in the proposed charter that the purposes for which the applicants desire to be incorporated are 'to establish and maintain a place for the support of public worship and to preach

the gospel according to the doctrines of Jesus Christ,' as found in the Bible and the Christian Science text-book, 'Science and Health, With Key to the Scriptures,' by Mary Baker G. Eddy. What the gospel according to the doctrines found in the Christian Science text-book is, is shown in an article signed by Mrs. Eddy and published in the Christian Science Journal of March, 1897, in which she has written that the Bible and a book written by her called 'Science and Health, With Key to the Scriptures,' 'and my other published works are the only proper instructions for this hour. It shall be the duty of all Christian Scientists to circulate and to sell as many of these books as they can. If a member of the First Church of Christ, Scientist, shall fail to obey this injunction it shall render him liable to lose his membership in this church.' This shows that the so-called church is a corporation for profit, organized to enforce the sale of Mrs. Eddy's books by its members, which is a matter of business and not of religion. As the courts have no power to charter such a corporation, the application for a charter is refused."

the osteopaths want. It says: "These demands are simple and as simply secured, for they place the Osteopath on the same footing as physicians. The proper way to secure them is to take the same examination that the physician is required to pass, and thus secure all privileges granted by law to physicians. These people gradually call themselves physicians, and are gradually assuming the rights of physicians by suggesting and advising remedies used by physicians. They see their limitations, and are anxious to widen them, yet they have not been willing to pull themselves up to the level of the physician. The same old bitterness must be repeated in the coming legislature unless the Osteopath is willing to avoid it by passing the required examination".

The medical side of the present coal famine all over the country is one that should attract some attention from the profession. Health Officer Kiefer is quoted as saying that he looks for a large increase in the death rate this winter, particularly among old people and babies, unless some measures to insure a supply of fuel are forthcoming before the cold weather is fully upon us. His prophecy appears to be an entirely reasonable one; when it is considered how necessary a thing heat is, and especially for infants and invalids, the possible results of a continued coal famine are nothing short of appalling. The absence of heat in hospitals and asylums may well be calculated to produce the most fatal results, and it may become necessary to have the young and the infirm placed in churches and other public places, where soft coal may be burned. Even this means of heat, however, is by no means sure. If the price of all sorts of fuel continues to advance, we may be sure that a terribly high death rate will be the result of failure on the

Minnesota osteopaths are out with a statement of what they want. In a striking manner their statement reminds one of the desire of the Confederacy in the days of the Civil War: all that the southerners wanted was "to be let alone". All that the osteopath wants is the right to sign birth and death certificates—the latter would probably keep many of them busy if it should be granted—immunity from criminal prosecutions based on the charge of practicing osteopathy; and the same privileges in courts of law and in relation to public duties as are accorded 'other physicians'. The *Northwestern Lancet* makes a singularly pertinent suggestion in connection with the statement of what

part of the poor to secure the means for warming their houses.

How far-reaching the arm of British ethics in medicine is has been well shown in the reported action which is contemplated in the case of some Australian physicians and surgeons who were indiscreet at the time of the king's recent and happily terminated illness. The charge made against the island residents is that they supplied the papers in Sydney and Melbourne with comments on the case, and for this they are to be reported to the British Medical Association and the Royal College of Surgeons for having violated a part of the code. This seems to us, unless the facts have not been fully stated, like going too far. A public is naturally interested in any expert concerning a topic of national import, and the well-known patriotism of the Australian colonists must have made them eager to know every chance the king had for recovery. Just why a reputable physician should not have been permitted to give the benefit of his knowledge to people who were eager for every scrap of information bearing on their king's condition is not quite clear. The case of the king, as a public character, was a matter of public interest; and it appears to us that any action taken against the Australian practitioners which will be to their disadvantage may possibly be a trifle unjust.

Something of an innovation has been instituted by the management of the Northwestern railroad, in that their train employes are to be given careful training in first aid to the injured. Chief Surgeon Owen, and General Manager W. A. Gardner are at work, completing plans for the elementary education of the men and it is expected that when these plans are carried out every man will be able to set a

broken leg or an arm, bind up wounds, and administer restoratives to the injured suffering from shock. Every passenger train will carry a medicine chest and a school of instruction for the men is about to be established. The idea is being put into execution partially because of the report of competent railway surgeons to the effect that from 50 to 75 per cent. of the deaths occurring from injuries received in a railroad wreck could be prevented by proper care, given immediately after the accident.

The *Philadelphia Medical Journal*, finds editorial space to comment caustically on the recent automobile accident in which young Fair and his wife lost their lives in France. "The death of young Fair," it says, "need greatly surprise or seriously grieve no one. If the young man had lived much longer he would probably have killed some one whose life was much more valuable than his own. * * * Sympathy for this victim of self-inflicted immolation should be tempered by a consideration of the fact that Fair was deliberately, recklessly and selfishly imperilling the lives of others when he lost his wife's and his own. * * * The public cannot afford to wait until all the fast automobilists kill themselves off. It should take a hand itself." From which we infer that the editor of the Journal is somewhat opposed to reckless automobilizing.

On September 26 last, Dr. Alban C. Gardner, well known among the medical fraternity in Detroit and in the state, passed away, after a three years' illness. The doctor was a native of Palmyra, N. Y., and was about 60 years of age. He spent most of his life in Michigan and for the past quarter of a century was a resident of Detroit. He was a prominent Mason, a member of the Dowagiac lodge.

Command of the English language is usually considered a blessing, and the man who can express himself readily certainly has many advantages. The author of a book we have recently read possesses a vocabulary which causes us to break the tenth commandment. He is a physician and he says to a nurse, in speaking of a patient: "She has become wrapped up in the fascinating maze of rogatory stichomancy, impanation and thurification. This farrago of conditions could not produce any other conditions but what we have just seen. I think you understand me?" This is a staggerer, but when the nurse says comfortably, "Yes, doctor, I think I do", we simply gasped and consulted the dictionary.

New Orleans will be the place of the next meeting of the American Medical Association, to be held May 5th to 8th. Dr. Isadore Dyer, of New Orleans, has been made the chairman of the committee on arrangements and he has already taken steps to secure the co-operation of the southern medical press in making the meeting a memorable one. With characteristic hospitality, Texas is suggesting that a committee from the medical society of that state be appointed to invite the leading members of the national association to be their guests in San Antonio or a few days before going on to New Orleans. A number of the latter have already signified their intention of accepting Texan hospitality before they attend the meeting.

The daily press contains an account of the death of Dr. Daniel L. Wasser, of Pittsburg, on September 18 last, under particularly distressing conditions. He was a typhoid fever patient in the West Penn hospital, and was given an injection of carbolic acid instead of oil by his nurse. Two bottles were at hand and by mistake the fluid for the injection was taken from

the wrong one. How any human being could make such a ghastly error passes our comprehension and the fact the mistake was made only serves to emphasize the necessity for unceasing vigilance against error on the part of every one who has to do with ministering to the sick.

The annual freshman-sophomore rush at the Detroit College of Medicine was held on the first day of the month and when the veil of battle lifted two students were unconscious, six so dizzy as to require assistance, seven had their arms or legs put out of commission, and bruises and cuts were plentiful. Clothing suffered heavily in the engagement, but no fatalities are reported, from which we are led to infer that college spirit at the college in question is on the wane.

"The physician needs a society more than the society needs him," says the *Northwestern Lancet*. Evidently the societies in Minnesota are blessed with a large membership and could spare a few. We had always thought that the matter of a physician's membership in a society was one of mutual benefit—the physician benefitting the society, and the society benefitting him in turn. Where either fails the other can get along better alone.

Hearty Laughers.—Three cases of remarkable laughter, in regard to its onset as well as duration, are reported to have occurred in Wellington, Ill. The first case was that of a girl, 15 years of age, who laughed four days in succession. The spell was cut short by the effect of a glass of cold water being thrown into the girl's face by her father. The second case was that of a girl, 15 years of age, and the third, that of a young man. In these two cases the victims stopped laughing, probably from sheer exhaustion, after a week's duration of the disease.—(*St. Louis Medical Review.*)

NEW INSTRUMENTS & DEVICES

Mention of new instruments and devices in this department is entirely complimentary and articles illustrated are judged on their merits.

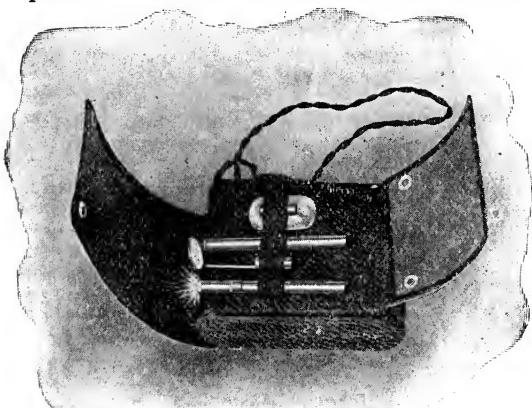
We invite manufacturers and physicians to send us matter suitable for publication under this head. A description of the device and an electrotype or half-tone with a base not greater than two and five-eighths inches should be sent.

Always mention the price of the article in question.

The management cannot undertake to return cuts unless postage for same accompanies the letter with which they are sent.

PHYSICIAN'S DIAGNOSTIC LAMP.

In an attractive and compact form, this device gives the physician practically what he wants in the way of a small lamp for examining the throat of a patient. As the cut shows, the apparatus consists of three parts—a handle to which the cord from the batteries is attached, the lamp and shaft and an adjustable tongue depressor. Either constant or intermittent



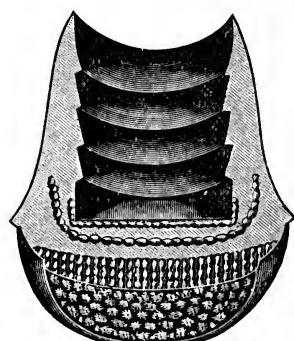
illumination may be secured with this outfit; pressing a handle down will secure illumination of the lamp as long as contact is maintained, or the shaft may be pressed firmly down into the handle and a continuous circuit be established. The light is very brilliant and practically heatless and the adjustable mirror admits of examining every portion of the

throat possible. Power for illumination is furnished from dry batteries and it is estimated by the manufacturers that 500 examinations may be made at a cost of fifty cents to the physician. The size of the entire device, when it is folded up in its leather carrying case, is $3\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{2}$ inches and the total space occupied by it is therefore a little over 23 cubic inches. It may readily be placed in the physician's bag, being light in weight and occupying comparatively little room.

The price of the device, complete with battery, is \$5.00, and it is well worth that sum.

FRICTION PLUG CRUTCH TIP.

Every physician who has to prescribe the use of crutches for his injured or deformed patients knows the difficulties that arise from the frequent wearing out and subsequent slipping of the rubber tips which are placed on crutches in order to afford a firmer foot-hold for the patient. A new form of tip, however, has recently made its appearance which bids fair to do away with the annoyances which have previously been experienced. The friction plug in question, which can be applied to all kinds of crutch tips, is made

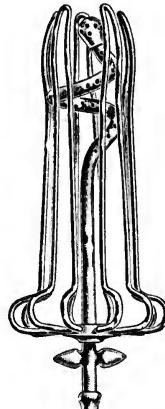


such a fashion that the wear comes off the ends of the threads, so that the danger of unraveling is done away with. The cloth itself is coated, or frictioned, with rubber and by this means it becomes an integral part of the tip when moulded adhering firmly to the rubber which sur-

rounds and encloses it. The wearing surface thus formed is much more durable than the plain rubber and reports from continued use of the new-style tips show that in practice the length of time which this kind of fabric will wear is from four to six times that of the older style, or even more. The new plugs cost a little more than the others, but it is claimed, and with apparent justice, that the actual cost of them is no greater, when the longer time of service is considered.

SYRINGE TIP FOR PHYSICIANS.

Every month brings something new in the way of a tip for syringe, and the one shown here is one of the latest. It is easily used in connection with either a fountain or an ordinary bulb syringe and is primarily intended for thoroughly flushing out the vagina, when the latter has been well expanded. The fine wire



looped valves of the dilating speculum provide for a dilatation sufficient to admit of a thorough examination or for the administration of local treatment. A medicated swab may be easily improvised by winding a medicated gauze about the helical coil of the douche tube, and thus the syringe tip combines a means for almost any sort of local treatment with an unusually efficient device for flushing the vagina. The tip retails for the sum of \$1.50.

NON-COLLAPSIBLE NIPPLE.

Dealers in rubber goods are constantly bringing to the notice of the profession some new form of a nipple for bottle-fed babies, which prevents the collapsing of the nipple. The form we illustrate herewith has been on the market only a comparatively short time, but it has met with considerable success and has been largely recommended by the profession to mothers whose children are subject to colic as the result of sucking in air from the nip-

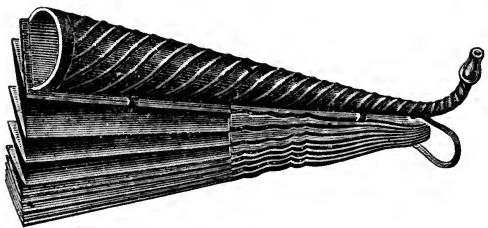


ples commonly attached to nursing-bottles. This nipple effectually prevents the undue entrance of air into the baby's mouth and in cases in which this is a predisposing cause for colic it should prove of value. The price is certainly reasonable, as the nipples retail for the sum of five cents apiece. They are made of pure rubber and are guaranteed by the manufacturer.

FAN HEARING HORN.

Many ingenious devices in the way of something to facilitate defective hearing without calling undue attention to the infirmity have been placed on the market, and one of the latest is herewith illustrated. As will be seen, it consists of a combination fan and hearing trumpet, the latter being fitted to one side of the fan-sticks in such a manner as to be quite inconspicuous. It is said that ladies are

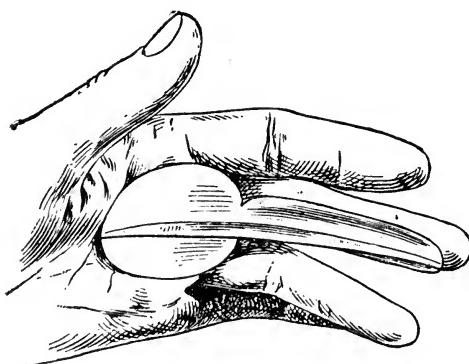
enabled by this novel device to make use of an aid to hearing without attracting



notice, and the device should be popular with specialists on this account, since the difficulty in pleasing a feminine patient in the matter of an instrument to assist an infirmity is well known. The device is well gotten up and retails for the sum of \$7.00.

BOLLES' ALUMINUM FINGER SPLINT.

With aluminum as a material, this splint is naturally cool and light in weight, while its size and lightness are such as to make no appreciable difference in the contents of an emergency bag. The palm, or wide portion, is made of sufficient width to admit of easy adjustment



to the injured hand, while it is of sufficient flexibility to secure easy removal. At the same time it furnishes a sufficiently rigid support for the finger held in the splint. The splints are put up in boxes containing one dozen and they are sold for 15 cents each or \$1.50 a dozen.

THERAPEUTIC BREVITIES

Internal Use of Carbolic Acid.—Dr. S. Henry Dessau, of New York City, read an interesting paper on this subject before the Medical Society of Greater New York last June, his paper afterwards being published in *Pediatrics*. As the result of his findings is somewhat in line with those of Dr. E. S. Sherrill, published in the September number of the JOURNAL, we take pleasure in abstracting them. Dessau's experience with carbolic acid internally began in 1894, and he is now satisfied that his theories at that time have been borne out by results. He regards carbolic acid as a type of the germicides, and, since it is evolved by nature in the processes of animal digestion, that it should be accepted as a specific remedy against the disease-action of a certain class of germs. He found no reactionary effect from the administration of the acid when it was given with due regard to the age and size of the patient. His chief experience was with children in the treatment of affections arising from the presence of the influenza bacillus. He recommends the use of the acid in the form of a solution of the strength of 1, 2, 3 and 5 per cent., according to the age of the child. For children under one year of age a teaspoonful of the 1 per cent. solution is given every two hours, while a five-year-old child may take the same quantity of the 5 per cent. solution. Dr. Sherrill's dose for scarlet fever, it will be remembered (see page 569 of the September JOURNAL) was two minimis of the acid to the dose every two hours. His plan was to make a mixture of one drachm of carbolic acid, one ounce of glycerine and water enough to make four ounces; a teaspoonful of this mixture would contain about two drops of the acid, and Dr.

Sherrill administered it well diluted in half a glass of water.

Dr. Dessau adds the statement of his belief that the therapeutic uses of carbolic acid will increase; he suggests that it would probably be beneficial in cases of erysipelas, scarlatina, and even typhoid and pneumonia. He prefers it to creosote in such cases because for children it makes a better solution and has less of a disagreeable odor; and even the odor and taste he partially overcomes by the use of cinnamon water in conjunction with the acid. He suggests that mothers shall be told that the medicine smells of carbolic acid, in order to allay any fear they might have that a mistake had been made.

Olive Oil for the Stomach.—In cases of ulcer, cancer and stenosis, a wine-glassful before meals will prevent the severe pain that follows upon eating. In many cases of functional stenosis, the concomitant dilatation of the stomach disappears completely. Twelve cases of gastric catarrh, treated by this method, yielded uniform good results whenever the oil was well borne—about one in twenty can not take the medicament in the doses required—that is, up to about sixty to seventy-six drachms daily.

In two instances, this treatment was tried as an absolutely last resort before operation, yet proved successful; the patients, who had lost so much in weight as to appear most cachetic, began immediately to gain in flesh, and within two months were almost cured.—(*Medical News.*)

Facial Neuralgia.—Medclaff has proposed this formula:

- R Tincture of aconite-root,
- Tincture of colchicum-seeds,
- Tincture of belladonna, equal parts.
- M. Six drops (in water) to be taken every six hours.—(*New York Medical Journal.*)

NOTES & COMMENT

To Good to be True.—Dr. Osler relates an anecdote of Dr. Benjamin Winslow Dudley, of Lexington, Ky., who was one of the most famous lithotomists of his day. No surgeon in the South or West had such a reputation, and he, more than any one else, built up the fame of the Transylvania school. In 1837 a poor lad with stone was brought to him from one of the distant settlements. The operation was successful, and when the parents asked Dr. Dudley for his fee, he, knowing their circumstances, refused to take anything. The young lad was deeply impressed by the generosity of the great surgeon, and made a resolve that if ever he became rich the fee should be paid. About two years ago one of the heirs of Dr. Dudley had a letter from W. G. Saunders, of Iowa, stating that he was anxious to make arrangements to pay a long-standing indebtedness, and asked if a fee of \$500 would be suitable for the operation of lithotomy performed on him by Dr. Dudley in 1837. Last year the executors of Mr. Saunders wrote that in a codicil of his will directions were given to pay the fee with interest, and they had much pleasure in handing over the sum of \$2,390.—(*St. Louis Medical Review.*)

For Amenorrhœa and Scanty Menses.

—When the physician is confronted with an obstinate case of scanty menstruation, let him try a treatment consisting of two grains manganese binoxide three times a day. This medication tends to normally increase the flow and is of great benefit in securing regularity of the menstrual period.

BOOK REVIEWS

A Text-Book of Practical Therapeutics, with Especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical Hospital; One-Time Clinical Professor of Diseases of Children in the University of Pennsylvania; Laureate of the Royal Academy of Medicine in Belgium, of the Medical Society of London; Corresponding Fellow of the Sociedad Espanola de Higiene of Madrid; Author of "A Text-Book of Practical Diagnosis," Etc. Ninth Edition, Enlarged, Thoroughly Revised and Largely Re-Written. Illustrated with 105 Engravings and 4 Colored Plates. Pages, 775. Price, Cloth, \$4.00. Lea Bros. & Co., Publishers, Philadelphia and New York.

Hare's text-books are so universally recognized that the present form of this well known work can scarcely avoid attracting the attention of the profession, especially of those members of it who happen to have in their possession a copy of one of the earlier editions. The author states that in this edition he has endeavored to make such changes and additions as would render the book still more useful to the practitioner and the student. All new measures that seem useful to him have been given a place here and there are nearly one hundred illustrations more than there have been in any previous edition of the work; many of them show the actual application of the procedure described.

The book is subdivided into sections, as follows: General Therapeutic Consid-

erations; Drugs; Remedial Measures other than Drugs; Feeding the Sick; Diseases; Table of Doses of Medicine; Index of Drugs and Remedial Measures; Index of Diseases and Remedies. The tables and indexes are carefully arranged and form a most valuable addition to the book. It is a work that should be in the library of every student, who will find it a constant help.

Hare makes use of the following sentences, prefacing the entire work with them: "When called to guide a patient through an illness the physician should be constantly a watchman, and a therapist only when necessity arises." And, "A good physician is one who, having pure drugs, knows when to use them, how to use them, and, equally important, when not to use them."

Grayson's Laryngology. A Treatise on the Diseases of the Throat, Nose and the Associated Affections of the Ear. By Charles P. Grayson, M. D., Lecturer on and Instructor in Laryngology in the Medical Department, University of Pennsylvania. In one handsome Octavo volume of 540 pages, with 129 Engravings and 8 colored Plates. Cloth, \$3.50, net. Lea Bros. & Co., Publishers, Philadelphia and New York. 1902.

Among the numerous and well considered works on this subject this book of Grayson's deserves a high rank. "Order is Heaven's first law," and so, apparently is Grayson's. He likes to have things well arranged, and so he goes to special pains to have the text of his book in such form that it shall appear logical. He begins at the beginning—and in many cases pushes on to the end, making a clear track and leaving many hints of what is to come to the reader who is following out the line he has run.

A judicious statement of the number and kind of instruments to select and the best methods of examination to follow out are followed by considerations of the

anatomy and physiology of those regions of the head that are to come under the keen observation of the specialist. The text along this line is well illustrated and in this particular alone the book is well worth consideration at the hands of the profession. In his suggestions as to treatment and after-care, he tells just what to do and how to do it, in a way that can scarcely fail to be of interest to the reader. In this work Grayson again states what he has elsewhere laid down—that sexual practices have a large and as yet too slightly appreciated influence on the conditions of the nose and throat. He even cautions the wooer against a too ardent courtship! One hint he gives may prove of especial interest to the specialist who has tried other means to remove a foreign body from the ear. Grayson suggests that the operator try laying a camel's hair brush, dipped in glue, against the previously dried object and permitting the glue to harden. Then, he says, the object may often be removed. The expedient is not a new one, but has, as the author suggests, been "rediscovered."

The 500 odd pages are well filled with instructive material and the volume closes with a medical formulary that should prove of interest to the specialist in nose and throat work.

The Perverts. By William Lee Howard, M. D. Pages, 388. 12mo. G. W. Dil-lingham Company, Publishers, New York.

For those who are interested in morbid psychology, this book of Dr. Howard's should prove very entertaining. It is dedicated to the memory of Edgar Poe, whom the author regards as one who suffered under a "psychic incubus," and in the unwinding of the story of his hero, Leigh Newcomer, Dr. Howard to some extent offers an explanation for the eccentricities of Poe. It is not wholly pleasant reading; but the stirring up of cess-pools is never pleasant business, nor

should it be undertaken except with an absolute certainty of cleansing them. The author's style is that of a man deeply interested in his subject and well versed in the technical vocabulary of the physician, which he sometimes uses to the detriment of literary excellence. For example, he says: "Seated limp and helpless in a high-backed chair, with her white uncombed hair and emaciated face sunken in many etiolated pillows, whose once polychromatic coverings could be slightly discerned", etc.

The criminal who is possessed of medical knowledge is usually of the most interesting in fiction, as the success of many writers of medical criminals abundantly attests; and the story of how Mizpra, Leigh's sister, gets control of her mother by rendering her mentally incompetent, is an ingenious one. The same Sadist's scientific attempt on the life of her hated brother's infant boy also has the merit of being original, if slightly improbable. Dr. Howard has apparently had the experience with the submerged portions of society which comes to a young and energetic physician in a big city; and he is quite willing to tell us of it, in words that are as plain of those of the gentle resident of Table Mountain. It is as realistic as anything the late Zola has written, and it can hardly fail of interest to the reader who is interested in morbid neurology.

Electro-Therapeutical Practice. A Ready Reference Guide for Physicians in the Use of Electricity. Seventh Edition, Revised, Re-Written and Greatly Enlarged. By Chas. S. Neiswanger, Ph. G., M. D., President Illinois School of Electro-Therapeutics, Etc., Etc. Size, 7½ x 5 Inches. Pages, 202. Price, Limp Leather, \$1.50, Postpaid. E. H. Colegrove & Co., Publishers, Chicago, Ill.

For completeness and clearness, this is a book which we can heartily recom-

mend to those of our readers who are interested in the manifestations of the electric current in its relations to the treatment of disease. It is sufficiently particular to be of value to the beginner in electro-therapeutics, and it is general enough for the individual who has already advanced in the study of the actions of the current. Neiswanger is thoroughly familiar with his subject and is enthusiastic in his description of what can be done with electricity properly applied, while he avoids the error of supposing that electricity is a panacea. His book is a scientific treatise on modern knowledge of electricity and his language is pleasantly clear and instructive. Numerous illustrations, showing the almost innumerable kinds of electrical apparatus now in use, are of great assistance in making the book even more useful than it would be with the text alone. A system of interleaving affords space for the jotting down of notes on each subject presented, and the book, when carefully read and filled by the physician, should be a valuable asset to him in electro-therapeutical work.

The treatment of the numerous conditions which yield to electrical treatment is given, with the reason for each step, and a division of electro-therapeutical practice occupies considerable space in the book. Several pages are devoted to illustrations of the latest ideas in instruments and appliances for electrical work.

Chemistry of the Terpenes. By F. Heusler, Ph. D., Privatdocent of Chemistry in the University of Bonn. Authorized Translation by Francis J. Pond, M. A., Ph. D., Assistant Professor in the Pennsylvania State College. Carefully Revised, Enlarged and Corrected. Size, 9 x 6 Inches. Pages, 435. Price, Cloth, \$4.00 Net. P. Blakiston's Son & Co., Publishers, 1012 Walnut St., Philadelphia, Pa.

Heusler's monograph on the terpenes is the basis of this book, which contains many additions to the original text. The abundance of literature on this subject, following the issuance of the monograph, has given the translator a large quantity of material from which to choose, and this matter of choosing was undoubtedly one of much difficulty. Even with the condensation which he has so judiciously made, the work has assumed large proportions and may be regarded as in a way exhaustive. It should prove of more than passing interest to the student who has interested himself in this recently-developed branch of organic chemistry, though it will probably not prove of great value to the general reader. It is a book for special students of chemistry, and contains practically all the information on hand concerning these constituents of the ethereal oils.

The Breakfast-Food Family.—

John Spratt will eat no fat,
Nor will he touch the lean.
He scorns to eat of any meat;
He lives upon Foodine.

But Mrs. Spratt will none of that;
Foodine she cannot eat,
Her special wish is for a dish
Of Expurgated Wheat.

To William Spratt that food is flat
On which his mater dotes.
His favorite feed—his special need—
Is Eata Heapa Oats.

But Sister Lil can't see how Will
Can touch such tasteless food
As breakfast fare it can't compare,
She says, with Shredded Wood.

Now, none of these Leander please;
He feeds upon Bath Mitts.
While Sister Jane improves her brain
With Cero-Grapo-Grits.

Lycurgus votes for Father's Oats;
Proggine appeals to May;
The junior John subsists upon
Uneeda Bayla Hay.

Corrected Wheat for little Pete;
Flaked Pine for Dot; while "Bub,"
The infant Spratt, is waxing fat
On Battle Creek Near-Grub.

—(*Chicago Tribune.*)

DETROIT MEDICAL JOURNAL

ORIGINAL ARTICLES

OBSTIPATION AND ITS CAUSATIVE FACTORS.*

BY LOUIS J. HIRSCHMAN, M. D.,
Detroit, Mich.

In taking up the study of the rectum, am well aware of the fact that it is a subject less thought of, and less talked of by the general practitioner, than almost any other subject of equal importance. In fact, the rectum, to the average practitioner, is a sort of "Dark-Africa," or unexplored continent.

To a builder, in constructing a house or institution, one of the most important questions to him is the question of proper drainage and sanitation. The most wonderful structure that has ever been in existence is the human body. While it is true that we are not builders, yet upon us, as medical men, devolves the responsibility of the proper care of this structure. Just as much as the success of the builder depends upon the healthful and habitable condition of his structure, so too, the health and welfare and happiness of man.

The question of proper elimination, (or drainage of the human system), is, perhaps, only next in importance to that of its nutrition. Anything, therefore, which interferes with a proper elimination of waste products from the human body is something which demands our prompt and early attention.

In taking up the study of the rectum, I realize full well that a great deal that I may have to say at this time must be taken by my auditors largely upon my say-so, but before I am through I shall endeavor to demonstrate to you that whatever my say-so may amount to, it is based on absolute fact. The most difficult question in the vast realms of surgery and medicine are those in which reflex disturbances are involved.

One of the most prolific sources of reflex disturbances is the alimentary tract, and particularly that part of the alimentary tract which is confined within the limits of the rectum. We all know, or we all should know, that numerous diseases referred symptomatically to the genital tract, the digestive tract and other more remote parts of the body, are

*Read before the Wayne County Medical Society, October 23, 1902, at Detroit, Mich.

due largely to disease, the pathological origin of which is in the rectum. Cases of sciatic pain, incontinence, and the opposite of incontinence, or retention, as well as cases of herpes, and even nasal symptoms, have been remedied by the removal of the causes which were found in the rectum.

It is only within recent years, within the last decade or two, that the largest strides have been made in the study of rectal diseases and their remedies; and, to men still in their prime as practitioners, is due to a large extent our present knowledge of advanced rectal therapeutics. Martin, of Cleveland; Otis, of Boston; Pennington, of Chicago; are among those men who have recently contributed to our knowledge in this quarter.

Now, what is meant by the term of Obstipation?

Obstipation, to my mind, is best described as difficult defecation, due to mechanical obstruction: which obstruction is an integral part of the rectal wall, or some organ which impinges upon the rectal wall. Obstipation, in contradistinction to constipation, it will be seen, is a purely mechanical condition. Constipation, however, is a condition which is usually caused by dietetic error, or some closely allied condition, or to atony of the muscular walls of the intestine, thereby weakening its propelling power. Obstipation, we have found, by observance of a large number of cases, is at the foundation of a great many different diseases. Any abnormal condition which is due to defective elimination may be caused by Obstipation. For instance, uric acid conditions, intestinal indigestion, with accompanying gaseous disturbances, palpitation, sciatica, acne, furunculosis and other skin affections, as well as numerous other reflex symptoms, have been traced directly to obstructed elimination.

These conditions have been relieved by the relief of the obstructed condition of the rectum. It is perfectly astonishing to one who has devoted some considerable time to the study of the rectum, to note the therapeutic "groping-in-the-dark" which has been indulged in by seemingly conscientious and faithful practitioners of medicine. I have known cases upon cases of individuals who, suffering from organic obstruction have been dosed with cathartic after cathartic, and never in the whole course of the patient's trouble has a rectal examination ever been suggested. In a great many cases where a rectal examination has been made, that examination has usually consisted of the mere insertion of the forefinger into the rectum or perhaps also, the insertion of an ordinary dilating speculum in the lithotomy position or perhaps, with the patient leaning over a chair or table. This was called in almost every case a "thorough rectal examination."

Now, before any man can conscientiously treat any condition of the rectum no matter how simple, it is his bounden duty to that patient and to himself, as a careful practitioner, to make a thorough examination of the rectum. I maintain that a thorough examination of the rectum cannot be made without special instruments and without the patient assuming a special posture. A very fair examination can be made without any instrument; that is, with the patient in the knee-chest position and the insertion of both index fingers, well lubricated and back to back. By slowly separating the fingers the rectum can be inflated and a fair knowledge of its condition obtained. But, a thorough examination requires, as I have said before, special instruments and special care. The technique of a thorough rectal examination is as follows:

The patient should be placed in the

One's position on an ordinary surgical table or chair. He should be raised to the knee-chest position, with his buttocks well protruding. He may be turned so that he rests upon one shoulder or the other, for comfort's sake. First, a complete ocular examination of the external parts should be made; the anus should be well inspected for fissures, external hemorrhoids or fistulae. The ischio-rectal-space should be both examined ocularly and palpated. Then, a digital examination of the rectum should be made with the carefully annointed finger. A sigmoid examination in the case of the male should be included in this position, for often the impinging retroverted uterus, or prolapsed and enlarged ovary, may be the cause of the entire difficulty. After having carefully done this, a bular rectal speculum, similar to that which I will now pass around, should be inserted. When the obturator is removed the atmospheric air rushing through the speculum into the rectum will inflate the rectum with a sharp hissing noise. I say the rectal speculum should be inserted. In reality, if the obturator of the speculum is pressed against the anus, slightly downward, towards the umbilicus and the patient asked to bear down, the anus will climb down over the speculum and it will enter the rectum painlessly. I might say that if the patient is neurasthenic, or the anus painful, the injection of a few drops of a one per cent. solution of cocaine, will render the insertion of the speculum painless. The speculum should first be entered to its fullest length, then, by means of a reflected light from the head-mirror, or better, by means of a small electric light, ocular inspection of the rectum may be made. If the rectum seems to be terminated at the end of the speculum, this apparent obstruction is probably due to the presence of a rectal valve. Now, by proper

manipulation of the speculum the edge of the valve will be brought into view, and beyond this will be seen a cavity. At the end of this cavity we may meet with another obstruction, and again moving the instrument to one side or the other, a new field will come into view. There may be two or three or even four such fields. These fields are known as rectal chambers, called from without inward, first, second, third, etc., rectal chambers. These chambers get their numerical name from the valves, behind which they are situated.

After we have satisfied ourselves as to the condition of the valves and chambers, noted whether or not the valves are enlarged, thickened, inelastic, or not; also, whether mucus is clinging to the valve edges, and also whether there is a polyp or ulceration in any of the rectal chambers, or not—in fact, after a complete ocular inspection of the rectum with the speculum this deeply inserted, we may gradually withdraw it.

We must note the new fields as the side-walls come together before the opening of the speculum, observing whether or not the rectal wall is congested or ulcerated, or whether hemorrhoidal conditions exist. I might say that a very good view of the sigmoid flexure can be obtained by means of this inflation. The question of the ready inflation or not of the rectum is a point of some diagnostic significance. The appearance of the valves is well illustrated (diagrammatically, of course), by the accompanying chart.

Now that we have acquired a fair conception of the technique of a proper rectal examination, we might with profit, discuss the various conditions which cause obstipation and which are diagnosed by means of such an examination.

Obstipation, which you will remember, is an organic obstruction, is caused occasionally in elderly men by enlargement

of the prostate gland. The diagnosis of this condition can be made by digital examination alone and needs no further comment. In women, particularly those who have borne children, or who have

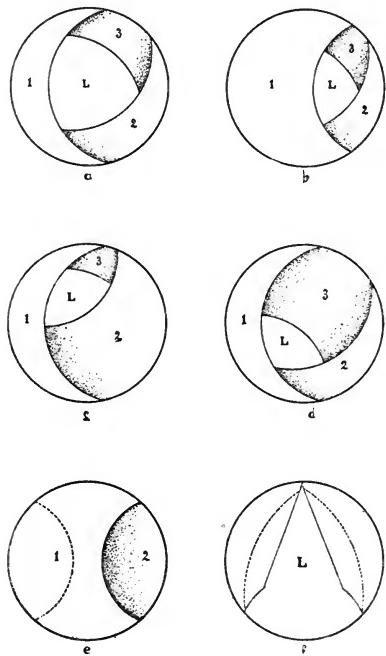


Plate I. (Diagrammatical.)

a—proctoscopic view of normal valves (first, second and third.)
b—proctoscopic view of enlarged first valve (second and third, normal.)
c—proctoscopic view of enlarged second valve (first and third, normal.)
d—proctoscopic view of enlarged third valve (first and second, normal.)
e—proctoscopic view of enlarged first and second valves overlapping.
f—V-shaped incision for valvotomy. Dotted lines show retraction line.

L—lumen of rectum,
1—first rectal valve,
2—second rectal valve,
3—third rectal valve.

enlarged wombs, or pathological enlargement of the other pelvic organs, who are suffering from rectocele or from adhesions of the rectum to the womb or other organs, may suffer from obstipation, due to these conditions. Spasmodic contraction of the sphincters may also obstruct the fecal movement. These conditions may also in a large measure be diagnosed after a vaginal and recto-vaginal examination, without the need of rectal inflation.

But by far the vast majority of cases of obstipation are caused by the enlargement of one or more of the rectal valves. There formerly was a great deal of discussion and question as to the existence of the rectal valve. Some men, yes, and quite recently, have declared that the so-called valves were nothing more than folds or rugae! But, I have yet to find one of these skeptic individuals who was of the same opinion after a proper rectal examination. In fact, their statement of the non-existence of the valves was based wholly upon ancient text-book knowledge and not by the results of modern investigation. The proper way to convince anyone of the existence of anything is to demonstrate such an existence. Therefore, in order to more fully explain the rectal valve and its affection it is almost imperative to do so by means of actual demonstration upon a patient. In the absence of a patient or subject, a little stretch of the imagination, if not a stretch of the truth, will help us out.

The normal rectal valve is attached about five-eighths of the rectal circumference, and is, at its widest part, three-quarters of the diameter of the rectal lumen in width. The valves are arranged in a spiral manner, the upper end of each being attached somewhat higher than its lower end, and the next lower valve starting below the center of the one above it. This arrangement gives a spiral channel for the descent of the feces, the rectal valves retarding the too rapid descent of the fecal current. This is the physiological function of the valves of the rectum. They are not mere folds of rectal mucous membrane, as some would have us believe, but typical anatomic valves.

A cross-section of a rectal valve, illustrated in the accompanying diagram, shows; first, mucous membrane covering the fibrous laminae, then the heavy layer of circular muscular fibres, which is covered

nous with the muscular coats of the bowel.

The function of the valves of the rectum being to retard the precipitate descent of the feces in health, it will be readily seen how the enlargement and thickening of these structures would exaggerate that function and cause a partial or even a complete obstruction to ready passage of the fecal excretions through the rectum. The obstruction may be so complete as to give rise to all the symptoms of acute intestinal obstruction. Martin, of Cleveland, reports fatal case of obstruction, which proved,

patient to submit to a rectal examination before a correct diagnosis can be reached:

First, of course, inability to defecate properly or comfortably. The patient will tell you that he has a desire to go to stool, but strain as he will, he can pass nothing, or perhaps a few small, hard, apparently broken off pieces, or a long, ribbon-shaped stool, either accompanied with mucus or not. He will also tell you that this condition has existed for a long time: that cathartics have lost their effect: that he is continually suffering from abdominal distension: that he does not get relief from the ordinary defecation: that his rectum feels hot and burning, and feels constantly overloaded and stuffed, as he expresses it. The ribbon-shaped stool I consider as almost pathognomonic. The patient may go from two days to a week without stool, unless by artificial help. There may be tenderness in the lower abdominal region: the mass can often be felt in the region of the sigmoid flexure. (I have had several patients, who have come to me with a diagnosis of stricture of the rectum, made by passing the rectal sound, and from the presence of ribbon-shaped stools, proper examination showed them all to be hard, fibrous, enlarged rectal valves: section of which gave complete relief).

After the relation of symptoms, such as this, rectal examination will show, in nine cases out of ten, one or more enlarged rectal valves.

The symptoms of straining with the inability to accomplish anything is explained by the fact that the enlarged rectal valves overlapping, impinge one upon another during the bearing down movement and absolutely obstruct the passage of the feces. Perhaps, if the two rectal valves do not completely appose, a narrow, elliptical opening may be left, through which the ribbon-like stool is molded. If the propulsive effort is in-

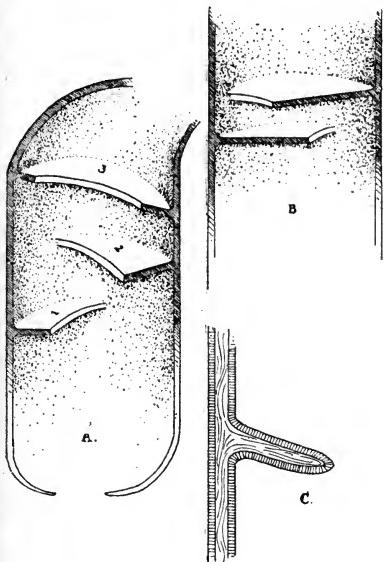


Plate 2. (semi-diagrammatical.)

-longitudinal section of rectum showing valves in situ. (normal.)
-longitudinal section showing overlapping first and second valves.
-cross section of a rectal valve showing muscular structure.

- 1—first rectal valve.
- 2—second rectal valve.

ost-mortem to have been due to hypertrophy of the rectal valves.

To come back to the condition which most continually is the cause of obstruction to defecation, the enlarged rectal valve. If a patient comes into your office and complains of the following train of symptoms, or some of the following symptoms, you may be justified in asking that

intermittent we have a broken off stool. If the valve at the recto-sigmoid flexure obstructs and fecal matter is forced through the obstruction, it may accumulate below in a lower chamber and form a large hard mass, which causes great suffering when passed.

The symptom of abdominal distension is due to the gases retained behind the fecal mass in the large intestine, which in its turn is retained behind the valves.

The general symptoms are those of intestinal auto-intoxication and the other diseases due to defective elimination.

I might say that, in my opinion, the enlargement of the valve in the first place is due to a condition of congestion, which is caused by straining to remove the stool, which is composed of improper food elements or improperly digested food elements. The constant hyperæmia is conducive to an overgrowth of tissue in the rectum, as well as in other parts of the body.

Now, what shall we do for our patients who are suffering from obstipation? Advise proper diet? Advise exercise, massage, the drinking of large quantities of water, out-door life?

Yes, these are all good suggestions to our patients; but all of these will not remove a mechanical obstruction. If the obstruction is due to enlarged prostate and the case is operable, operate. If not, our patient is indeed in a sad plight. Most of the conditions in the female pelvis are amenable to surgical relief. Tamponing in some few cases will cause the needed relief. My experience, however, with tampons has been grievously disappointing in these cases. Simple diversion may relieve those cases caused by spasmodic contracture of the sphincters. In some cases, where the rectal valve is slightly enlarged, massage, by means of a probe covered with cotton at the tip, will, if practiced daily, bring about a gratifying result; but, in a large number

of cases the enlargement has gone on so far that when the case comes to us for treatment, operative relief is the only treatment left.

The enlarged rectal valve, which is the offending member in these cases, can be safely incised through the speculum, by means of special instruments which have devised, and which I here exhibit.

We may use general anæsthesia, local anæsthesia or operate without anæsthetics at all, for it may not be generally known that the upper rectum is not supplied with sensory nerves, and I frequently operate without an analgesic agent of any kind.

The technique of the operation is simple after one has made a study of the subject, and robbed of its details is as follows:

A V-shaped incision down to the base of the offending valve is made with the angular rectal scissors. The outer edges are then engaged between the jaws of my valvotribe and are crushed to such an extent that hemorrhage is stopped. We next proceed to the higher valve until all the diseased ones are treated in like manner. I used formerly to employ this hook-shaped needle, armed with a catgut ligature, with which I tied off the valves before cutting them. I devised a valvotribe to do away with the stitching, and it has been eminently successful, greatly shortening the length of the operation. The rectum is then packed with sterile gauze, through which a rubber tube for the passage of gas is inserted.

The patient is usually required to remain in bed from three days to a week. At the end of 24 hours the gauze packing, with the tube, is removed. The patient is allowed to remain on liquid diet for 48 hours longer, and is then allowed gradually to resume regular solid food.

I have found that in from one to two weeks the patient has fully recovered,

natural bowel movement coming on unassisted within 48 hours of the operation, and the patient seldom requiring any cathartic assistance afterwards. I have had some cases in which this condition had existed for from fifteen to twenty years and natural bowel movements have been resumed immediately after the operation.

In the relief of this condition and the providing of proper drainage for the human economy, I believe that we, who have explored the heretofore unknown and seemingly unapproachable fastnesses of the human rectum, have accomplished a considerable deal towards the happy existence of the human race.

420 Woodward Avenue.

The "Sleeping Sickness."—An exchange reports that an expedition, organized by the British Foreign Office and the Royal Society has left England for South Africa, to investigate this disease and its etiology. It adds that in one district of Uganda alone (Busoga) 20,000 were alone succumbed. The JOURNAL gave a brief account of this disease on page 503 in the July number. It is certainly a curious manifestation and it will be interesting to hear the results of the expedition's findings. Sir Harry Johnson, it may be remembered, believes that the cause of the disease is a parasite in the blood which interferes with the nourishment of the brain by choking the blood vessels. The disease is said to have many features in common with the general paralysis of the insane. This fact would seem to strengthen Sir Harry's diagnosis to some extent.

A man of integrity will never listen to any reason against conscience.—Hume.

Flattery is a base coin which gains currency only from our vanity.—Rochefoucauld.

PAIN OR SENSATIONS OF PAIN IN AFFECTIONS OF THE HEART.*

BY JOHANN FLINTERMANN, M. D.,
Detroit, Mich.

It very frequently happens that patients complain of pain and different distressing sensations in the left anterior region of the chest, corresponding to the region of the heart. We are in such cases very often inclined to consider these as caused by circumscribed pleuritis sicca or rheumatic attacks; or we take them for pure functional nervous disturbances—cutaneous hyperalgia or intercostal neuralgia. Physical examination of the heart and lungs fails to discover any pronounced abnormalities; but further examination in a great many cases leads to a different view as to the nature of these sensations. The fact that in a large number of cases the patients complain of abnormal sensations in the left anterior part of the chest leads to the question, why are not pleuritis sicca, rheumatism and neuralgic affections just as often found localized on the right side of the chest, or in the posterior part? This prevalence of pain or abnormal sensation in the left anterior part of the chest leads to the logical conclusion that there must be a connection between these sensations and the heart, so as to make them in some way dependent on the heart. Patients complaining of such pain and abnormal sensation very often call on the physician because they believe themselves to be suffering from some disease of the heart. My experience, from seeing a great many cases of this nature, in which patients complained of pain and abnormal sensation in the left anterior part of the chest, has led me to look for an anatomical lesion of the heart.

We have to consider the fact that these patients are of a neurotic temperament, suffering only from abnormal sensation,

*Read before the Academy of Medicine, Detroit, Mich., September 2, 1902.

and that they localize their trouble in the region of the heart, which is absolutely normal. I shall not have to report cases of this kind, but shall limit my remarks to cases with anatomical lesions of the heart; nor shall I discuss pericarditis, concerning which sufficient reports have been made.

Painful sensations in valvular affections:

It is well known that after the introduction of percussion and auscultation, the physical symptoms of diseases of the heart received the greatest part of attention. It is to be regretted, but it must be admitted, that this one-sided attention leads one to overlook, or at least to underrate, the functional disturbances dependent on the alteration of the circulation, and that this most important factor has but recently attracted the attention of the physician. But very little has been said in modern works on diseases of the heart concerning pain and abnormal sensation in valvular affections. I do not mean the subjective dyspneic difficulties of all kinds, from which the patient with heart-disease suffers; all these subjective sensations are duly reported. Very little or no mention has been made in regard to the different painful sensations in the different valvular diseases. Only the pronounced rheumatic attack is excepted, where the alarming character of the symptoms could scarcely escape the attention.

Report of a case of insufficiency of aorta: Male, 25 years old, with mitral insufficiency; severe pain in the region of the heart, no pericarditis, pleurisy or intercostal neuralgia; died of multiple cerebral embolism; during life, capillary pulse.

Mr. C., 61 years old, aortic insufficiency, pain in the region of the heart; and constant severe pain in the left arm. Mr. H., 55 years old, aortic sclerosis, systolic murmur in the right second intercostal

space, attacks of pain commencing in the epigastric region and followed by a severe painful sensation of pressure under the sternum.

Mrs. C., 31 years old, complained of a dull pain in the cardiac region, had fever, frequent pulse, heart's dulness did not exceed to any great extent the normal area; no abnormal sounds; examination of respiratory organs did not show any abnormality; no rheumatism or neuralgia. This case developed a cerebral embolism, aphasia and right hemiplegia, the cause of which could be due only to endocarditis. The pain in the region of the heart, which was quite pronounced, was really the only symptom of disease.

Mr. J. C., 61 years old, complained of very severe pain in the left side, most pronounced in the region over the area of the heart's impulse, which was below the fifth intercostal space, but inside the left mammillary line; loud systolic murmur at the mitral valve.

Mr. L. S., 40 years old; loud systolic murmur at mitral valve; acute endocarditis; severe pain in the left side; no pleuritis or intercostal neuralgia.

Mr. S., 60 years old; arterio-sclerosis; loud systolic murmur at the mitral valve; constant severe pain in the region of the heart.

To illustrate the difficulty and uncertainty of diagnosis in myocardial affections, I wish to report three cases which have come under my observation. From pain or painful sensation in the region of the heart alone, the diagnosis could not have been made.

Mr. John Holt, 40 years old, complained of a distressing sensation in the epigastric region. Careful physical examination failed to reveal any distinct disease of the heart. The patient died very suddenly and the post mortem showed a dilated left ventricle, the walls of the heart very thin, the muscles pale and soft. No degeneration of the blood vessels.

Mr. Jacob W., 65 years old, complained of attacks of severe pain in the epigastric region, alternating with a distressing sensation of pressure. It was not the pain of the nature observed in angina pectoris. There was no valvular affection, nor symptoms of organic disease of the heart. The patient died suddenly, while rising from a recumbent position. The post mortem showed dilatation of the left ventricle, walls of the heart very thin, the tissues very soft. A slight pressure with the finger would perforate the muscular walls.

Mr. Wetherell, 45 years old, complained of a painful distressing sensation in the epigastric region; no symptoms of organic disease of the heart. Patient died suddenly, while taking dinner in a restaurant. Post mortem showed the same condition as described in the two other cases. In all three cases, no symptom other than pain in the epigastric region was observed.

Nothnagel has collected 483 cases of valvular diseases of the heart. He found disturbance of sensation in 60 per cent. of all cases of aortic insufficiency: in 68 per cent. of all cases of aortic insufficiency, with stenosis; in 40 per cent. of all cases of stenosis ostium aortae; in 18 per cent. of the cases of insufficiency of aorta and mitral insufficiency; in 7 2-3 per cent. of his cases of mitral insufficiency; in 18 per cent. of the observed cases of stenosis ostii venosi sinistri; in 17 per cent. of the cases of mitral insufficiency with stenosis. No disturbance of sensation was observed in any case of stenosis ostii pulmonalis.

Nothnagel's collection of cases shows the great difference in the frequency of painful sensations observed in the different valvular diseases. In affections of the ostium aortae, painful sensations are more frequent than in those of the left ostium venosum. Pain was observed to be the most frequent in cases of aortic in-

sufficiency, combined with aortic stenosis.

Observations by different authorities, of former and of recent times, have shown a similar result; this is mentioned by Bamberger at an early date and more lately by Byrom, Bramwell and Germain See. But I must call your attention to one fact, which is, that in general authorities report cases of so-called stenocardiac attacks, which are usually accompanied by pain radiating into the left arm and that this fact accounts for the statement, frequently made, that pain or painful sensations in chronic diseases rarely occur. Nothnagel's collection of 483 cases does not limit itself to stenocardiac attacks, but reports also other painful sensations, which were not properly considered heretofore.

Stenocardiac attacks figure most conspicuously because of their serious nature and the intensity of the suffering they cause. Most authorities mention their occurrence in cases of aortic diseases and Germain See ascribes their occurrence only to them. Nothnagel is inclined to side with See; he says that he observed pronounced steno-cardiac paroxysms only in cases of insufficiency and stenosis of the aortic valves.

Nothnagel reports one case which seems to be an exception to this statement.

A woman, 31 years old, who had had articular rheumatism at the age of 22, noticed, after recovery from it, severe palpitations when ascending the stairs or when walking fast. One afternoon in her twenty-ninth year she had without apparent cause a severe piercing pain in the region of her heart, radiating into her left arm and even into the fingers. After the pain had lasted a quarter of an hour, she had moderate dyspnoea, which, with the pain, lasted two or three days. During these days there was cough and the expectoration of blood mixed with mucus. Two

years later there was a similar painful attack, lasting two days, but there was no bloody expectoration. She was removed to the hospital. Examination showed a pronounced stenosis of the ostium venosum sinistrum; perisystolic frémissement at the heart's impulse; loud presystolic murmur limited to the area of the heart's impulse; very pronounced accentuation of the second pulmonary sound; the lower end of the sternum lifted by the heart's action; cardiac dulness, extending across to the right side of the sternum; aortic sounds clear, no symptom of aortic disease of the valves.

This is rather a unique case but the fact remains nevertheless, that of all valvular diseases only the aortic affections show stenocardiac attacks. In this isolated case, the attacks occurred at such long intervals and the first one was accompanied by bloody expectoration; there was no post-mortem. It is therefore not excluded that with the stenosis of the venous ostium perhaps another pathological condition existed.

Besides the stenocardiac attacks, in which we have the familiar groups of symptoms, with severe pain in the left upper extremity, we find in valvular diseases other painful sensations and to these I want to call your attention. These painful sensations are described by patients in different ways, such as "burning", "piercing", or "as if something were being torn away", always referring the pain to the region of the heart; the pain itself is more or less continuous. Sometimes severe attacks of pain are complained of, accompanied by the sudden appearance of palpitation. In both cases the pain irradiated into the left side or into the back. In other cases a sensation was experienced as if a foreign body were situated in the left thoracic wall and sometimes as if there were a sore in that region; sometimes there is a

sensation of a painful tremor of the heart.

It is very remarkable that in most cases (not all) we are able to demonstrate objective disturbances of sensation of the skin and of the parts covering the cardiac region, not only in cases with pronounced stenocardiac paroxysms but also in the cases where we have only a painful sensation. You will see that lifting or pressing a piece of skin over the praecardial region is a great deal more painful on the left side than it is on the right. The same difference will be noticed when the part is pricked with a pin. Sometimes we observe both of these symptoms, sometimes only one of them. Cases are not infrequent in which we notice the difference of sensation also on the left side of the chest and on the back; this increased sensibility, extending to the spinal column, but in the majority of cases the increased sensibility is limited to the praecardial region. Strong pressure at the intercostal spaces in the cardiac region causes pain in the majority of cases, sometimes even very severe pain. The symptom of tenderness on pressure is often found in the course of intercostal nerve, especially to the left of the vertebral column.

I would state here that this hyperalgesia of the skin is also very often observed in cases of valvular diseases in which the patients never complain of spontaneous pain. I wish to emphasize the statement that in all such cases no symptoms of pericarditis are noticeable.

Painful sensation in diseases of the myocardium, not complicated by valvular affections: (The following remarks do not touch upon that type of stenocardiac attacks due to sclerosis or stenosis and obstruction of the coronary arteries.)

I have not seen many cases of myocardial lesion unaccompanied by valvular affections—myocarditis, cardiac hypertrophy in arterio-sclerosis, or idiopathic cardiac hypertrophy. The few cases

which I have seen induce me to speak of the painful sensations in just this type of cases of cardiac affection. Examination has made me think that the pain or painful sensation pointed to the seat of the trouble and facilitated the diagnosis.

Valvular diseases can be diagnosed by physical examination without considering other symptoms. Cases of myocarditis, especially when they are of a light nature or in the incipient stages, may escape the diagnosis. Physical examination in such cases does not reveal much, and the complaints of the patient and other symptoms are often vague or do not refer to the heart at all. If in such cases the patient complains of abnormal distress or painful sensation in the cardiac region, then this fact deserves attention. I do not at all wish to be understood as saying that a diagnosis of affection of the myocardium should be made from the presence of these sensations, because they occur so seldom and are of so vague a character that they might be observed when no myocardial lesions exist. But the fact that we know of their occurrence in myocardial affections should put us on our guard and we should not be satisfied in such cases to make a vague diagnosis of rheumatism, intercostal neuralgia, circumscribed pleurisy or the like.

Arterio-sclerosis, with cardiac hypertrophy, shows the largest percentage of cases in which these painful affections are observed. In other myocardial lesions, this symptom is of much more rare occurrence. The character of the pain and painful sensation, and the clinical symptoms in these cases are similar to those observed in valvular lesions. Authorities are unanimous in saying that typical stenocardiac attacks are observed only in cases of arterio-sclerosis with cardiac hypertrophy, where post-mortem proved the diagnosis or where clinical

symptoms unmistakably pointed to the nature of the lesion.

It is very difficult to give a satisfactory explanation of the cause of pain or painful sensation in valvular or myocardial lesions. The complicated nervous system of the heart and its innervation allows a great many hypotheses. Whether or not myocardial lesions might affect the cardiac ganglions, the latter belonging to the sympathetic nerves, is not a settled question. The cutaneous hyperalgesia and neuralgia have to be considered as eccentric, irradiated symptoms, which we very often meet with in diseases of other deep-seated organs. The pain and painful sensations in valvular diseases perhaps admit of another explanation which might be mentioned. The fact that in aortic valvular lesions the pain or painful sensations are most observed, a great deal more than in other valvular lesions, forces upon us the view that the muscular substance of the heart is less responsible for them than the bloodvessel itself. This view is corroborated by the frequency of pain in cases of aneurism and in diseases of the arteries generally.

368 Woodward Avenue.

Something to Imitate.—The physicians of Chester, Pa., established a protective organization three years ago, for the collection of old bills. It is now estimated that fully 3500 people owe doctors' bills, and the same methods are about to be pursued again. Some patients owe as many as 8 different physicians. Statistically, this shows that 10% of Chester's population owe doctors' bills.—(*Philadelphia Medical Journal*.)

Avarice is always poor, but poor by its own fault.—Johnson.

Children have more need of models than of critics.—Joubert.

A CASE OF CEREBRAL SOFTENING, FOLLOWING CORTICAL ANÆMIA FROM CEREBRAL THROMBOSIS.*

BY SAMUEL BELL, M. D.,
Detroit, Michigan.

When the nervous system is disordered, there exist certain pathological conditions, associated with characteristic clinical symptoms. Many of the pathological states may be impossible to diagnose and definitely locate, until death has supervened; but a wide experience, together with judicious reasoning and observation of the prominent clinical manifestations, will greatly assist the alienist in giving a fairly accurate location and description of any existing pathological lesions.

When the specialist has obtained a mental insight into the abnormal functional and physical condition of the most important organs, by a careful sifting and arrangement of the prominent symptoms, he will be in a better and safer position as regards the rational treatment of the disorder.

Before proceeding to discuss the clinical case set forth in this paper, I wish to impress upon the general practitioner the importance and necessity of formulating, so far as possible, a correct idea of any existing morbid, anatomical changes; and though the organic brain abnormality may be found impossible to diagnose and rectify directly, a careful study and correction, so far as possible, of any existing disorders, such as sensory, motor, functional, vasomotor, trophic, etc., will usually prove an important factor in the relief and treatment of the disturbed psychical condition.

Physiology teaches us that the brain is the organ of the mind. We may also assert that insanity is the *manifestation* of some organic brain disorder, and not the *disease* itself; furthermore, that the brain disorder is very often occasioned

by some defect in the anatomy and function of the kidneys, heart, or circulatory system. Thus, in the strict sense of the word, we do not *cure* insanity, but we *remove the cause of the effect*. The case herein described will illustrate the improvement in the mental state resulting from the proper treatment of any pathological conditions.

The patient I have selected for discussion is a man, aged 62, by occupation a farmer and drover. Height, 6 ft., weight, 170 lbs., education, fair. Physique, excellent, until taken sick. Knees arthritic; afflicted with rheumatism for past ten years. Temper easily aroused. Had been intemperate in use of chewing tobacco. A "rounder" among women. Evidence of syphilitic infection at some time in life. Attempted to shoot himself in head two years ago, while in a fit of melancholy.

The family history records the death of one sister in an asylum. No definite history obtainable.

The patient came under my observation four months ago, presenting a personal history indicating a gradual development of mental and physical failure, beginning two years previously. He had complained of persistent frontal headache, loss of memory, vertigo, impairment in sight, hearing and sensibility and use of left leg and arm.

The condition of the patient when first placed under treatment may be divided for discussion into the psychical and somatic, or the mental and material.

The intelligence was markedly diminished, so that he could conceive no clear idea of his surroundings. Although 100 miles from home, in a strange locality, and surrounded by places and objects unfamiliar to him in health, he usually appeared contented and fairly happy.

Fixed ideas were a prominent symptom, possessing his thoughts to the exclusion of all others, at certain times. His

*Written for the Detroit Medical Journal.

mental grasp, however, was not strong enough to retain any idea very long, one idea soon yielding to another. Some days he would discuss the buying and selling of sheep—his occupation while in active business—but for the past two months he has not mentioned sheep. At other times he would appear worried as to the health of his family, his prospects of recovery, etc. He usually expressed himself as feeling perfectly well, and anxious to return to business, continually remarking however, that his "head did not seem to feel just right."

Memory was especially impaired, though variable in power from day to day. He often could not tell his own name, nor the names of his children. Three minutes after eating a meal he would forget entirely having partaken of food, and would ask the attendant when dinner would be ready.

The power of concentrating his attention was greatly lessened. Though seeming to listen to any remarks being made to him, and carefully observing the speaker, if questioned, he would expose his entire ignorance of the subject of conversation.

His emotions were easily excited and he often gave way to crying or laughing, without apparent cause.

The strength of his will was occasionally shown, when he obstinately refused medicine at times, and fought fiercely against its administration.

Impairment in judgment and reasoning powers was also marked.

He had marked hallucinations, auditory, olfactory, visual, gustatory, and tactile. He would apparently hear music or some person speaking, when all was quiet, or see a person standing before him, when there was no person nor object near. In many other ways he would be conscious of sense impressions without external stimuli.

Illusions were also a marked feature.

He sometimes imagined a bed-post to be his wife, and would hug it closely. A table was conceived to be a hot stove, a horse appeared as a cow, a stranger's face and voice as those of his daughter. He had illusions of all the senses, those of sight and hearing being most frequent.

Delusions were also present, such as the belief that those about him were his enemies, and had come to kill him, or that his medicine was given for the purpose of poisoning him.

The physical examination disclosed many conditions which were undoubtedly the direct causative factors in the consideration of his mental trouble.

Evidence of central motor disturbances was shown by partial left hemiplegia, involving especially the leg and arm. There was in these limbs also a diminution in tactile, pain, and temperature sense. The facial paralysis was slight, being evidenced only by slight difficulty in elevating the eyebrows and in closing the eye, on the left side. The pupils were unequal, and reacted slowly. Ophthalmoscopic examination showed hyperemia of the disc, and sclerosis of the retinal and choroidal vessels. The hypoglossal as well as the motor oculi nerve was involved, as shown by deviation of the tongue towards the left side, when protruded.

The deep and superficial reflexes were all diminished, the patellar reflexes being absent. The foreskin showed an old scar, probably specific. Examination of the blood showed a leucocytosis, decrease in the number of red cells, and haemoglobin 55 per cent.

The condition of his heart, circulatory system, kidneys, and alimentary canal deserves especial attention.

The apex of the heart was displaced towards the left, the left ventricle being hypertrophied, and the aortic second sound accentuated. The heart muscle was giving way under the increased strain and pressure thrown upon it.

The circulatory system presents the important factor in the causation of the cerebral disease. The vessels were markedly atheromatous, and thickening of the vessel coat was very palpable. Arterial tension was greatly increased. Syphilis was undoubtedly the productive agent of the arterio-sclerosis.

Chronic parenchymatous nephritis is another of the important pathological conditions which were present. The urine was decreased, with low specific gravity. Color was turbid. Albumen abundant. Tube and fatty casts of various shapes.

Dropsy was marked and quite persistent. The patient presented the symptoms of uræmic coma when first observed. The face was pale and eyelids puffy. The anasarca was quite general, and all the indications pointed to the presence of a large, white kidney.

Constipation was present, together with gastric fermentation, and amylaceous dyspepsia.

The skin was eczematous in patches. There was also a wasting away of the subcutaneous tissue and muscular system.

In discussing the aetiology of cerebral softening, we may consider cerebral arterial thrombosis along with it, since thrombosis is one of the direct causes of the softening, through impairment to the nutrition of the brain substance. Defects of nutrition and excretion may be regarded as contributive factors. Among other causes, are mental strain, business worry, unhygienic influences, excesses of all kinds, alcohol, tobacco, sexual, rheumatism, etc. It is more common among males, and in persons of advanced years. The important causative agent in the case just described is the general, atheromatous degeneration of the arterial system, and especially of the cerebral vessels. The lumen becomes narrowed, the supply of nutrient fluid for the brain-cells becomes insufficient, and finally nutrition

becomes entirely cut off, from resulting thrombosis.

Our knowledge of the pathology of cerebral softening is fairly definite, and we are able to locate the centre of degeneration with fair accuracy by a careful consideration of the clinical phenomena. The partial and transient hemiplegia of the left side, and the absence of aphasia, would point to a disturbance in nutrition of the sensorio-motor centre in the right ascending frontal lobe, caused by thrombosis occurring in the ascending frontal branch of the right middle cerebral artery. Thus the arterio-sclerotic condition of the arterial system was the causative agent in the production of thrombosis, which in turn produced cortical anaemia. Cortical softening was beginning in the cortex about the motor centre, since compensation from collateral circulation was not sufficient to maintain the normal vitality of the nerve cells, owing to the cardiac and circulatory disturbance.

The prognosis of cerebral softening is bad, as a general rule. However, if the centre of softening be small, and does not involve important regions, some encouragement may be given that the patient will live for several years, under proper treatment. In the case cited above, although the area of softening seemed small in extent, the impossibility of entirely overcoming the arterio-sclerotic condition of the cerebral vessels especially increases the liability of future thrombosis areas. In addition, there might be marked softening of the so-called "silent" areas, without any clinical manifestations or disturbances.

The treatment of this case divides itself into medicinal, electrical and hygienic. Heart stimulants and arterial depressants are indicated. A combination of digitalis with nitroglycerin proved very beneficial in relieving the strain on the heart and arterial system, and in promoting collateral circulation. Strychnia and phos-

phoric acid were administered, together with arsenic, for their general tonic action in relieving the feebleness of both mind and body. Iron proved useful in combating the anaemic condition. Diuretics, such as potassium acetate, caffein, strophanthus, etc., were employed to aid elimination and to prevent uræmic coma. Bitter tonics assisted the digestion, and constipation was relieved by calomel and sodium phosphate. When hypnotics were necessary, sodium bromide, hyoscine and solid extract of Indian cannabis proved efficacious. Mercury and potassium iodide were administered for their eliminative action on any remaining syphilitic poison.

The hygienic treatment consisted in the application of hot and cold baths, followed by massage, the improvement in the muscular tone and vasomotor condition becoming marked. Nutritious and easily digested food, together with fresh air and sufficient outdoor exercise produced a marked beneficial action. The application of the galvanic current to the head and spine, and the faradic to weakened muscles, produced a great improvement in the neuro-muscular system.

At this writing, four months after treatment was begun, the patient shows marked improvement, both mentally and physically. The percentage of haemoglobin has been increased to 75, with increase in red cells nearly up to the normal. The cardiac strain is diminished, arterial tension has been relieved so far as is safe, thus permitting increased nutrition to all cells. Digestion is improved, and proper attention to the kidneys and general elimination has obviated the danger of toxic action on nerve elements from reabsorption. The resulting benefit on the psychical condition is manifested by decrease in amnesia, greater co-ordination of thoughts and speech, and decrease in hallucinations and delusions. The improvement is also marked in the

olfactory, auditory, and visual senses. The left partial hemiplegia is gradually disappearing, which goes to indicate that the softening, though present to a greater or less extent on the cortex, has not involved the motor-centre to the extent of sclerosis. The next few months can alone decide whether the arterio-sclerosis is sufficiently within control, and cortical nutrition enough improved, to prevent further thrombosis and cortical anemia. In any event, it is best to make a guarded prognosis.

65 Washington Avenue.

Parisian General Hospitals.—The following are the eight largest hospitals of Paris: Hôpital de la Pitié, 709 beds; Hôpital Lariboisière, 690 beds; Hôpital St. Antoine, 689 beds; Hôpital Tenon, 635 beds; Hôpital Laennec, 608 beds; Hôpital de la Charité, 516 beds; Hôpital Beaujon, 422 beds, and Hôpital Necker, 418 beds. The other 12 of the 20 hospitals under Government control are devoted exclusively to diseases of the eye and ear, infectious diseases, pulmonary diseases, diseases of children, and diseases of the nervous system and the insane. The best known among the latter is the Hôpital de la Salpêtrière, which contains 3,800 beds. All of these hospitals together can accommodate over 12,000 patients.—(*Medical Review of Reviews.*)

Deer Shooting.—The prospects for deer shooting in Northern Wisconsin and the upper peninsula of Michigan the coming season are exceptionally good, and fine sport is assured. Reduced rates will be made for excursion tickets from Chicago and Milwaukee to points on and via the Chicago, Milwaukee & St. Paul Ry. A synopsis of the game laws now in effect may be obtained on application to Robt. C. Jones, Michigan Passenger Agent, Detroit, Mich.

**A FATAL CASE OF MERCURIAL
POISONING.***BY JOHN F. BENNETT, M. D.,
Detroit, Mich.

At 1:00 on the morning of October 14th, 1901, I was hastily summoned to see Baby S., a seven months old infant, with the explanation from the grandfather, that the mother had applied mercurial ointment to her breasts and that he feared the baby had been poisoned. When I reached the child it was crying violently and appeared to be suffering from cramps. According to a fixed rule of mine, whenever there is the least suspicion of a poison having been taken, I administer an emetic, which I did in this case in the form of one grain of terpath mineral; it produced emesis in ten or fifteen minutes. I then gave fifteen drops of paregoric in a little sweetened water, and followed this a half hour later with ten drops more, after which the child became quiet and went to sleep. I then left the house, giving directions to administer ten drops of paregoric every half hour, providing the child awakened and became restless. Between four and five o'clock a. m. I was again summoned, but when I arrived, found that the baby had just died. The rapidly fatal termination of the case made me extremely anxious and cautious to obtain all the information possible concerning it. At my first visit, I was simply told that a small quantity of the mercurial ointment had been applied to the mother's breasts but had been removed by washing before the infant had been nursed. I therefore gave it as my opinion that the child had not been poisoned, but was suffering from indigestion or infantile colic. I was certain that emptying the stomach was the best thing I could do, providing it was a case of overloaded stomach producing indigestion, as it would also remove any poison which might be present

in the stomach. Upon close inquiry, after the death of the child, I ascertained the following facts:

The husband became infected with crab-lice, the mother contracted the same and the husband procured a one ounce box of double strength mercurial ointment and applied it freely to his own pubes and arm pits; his wife did likewise. The mercury had absolutely no effect upon the father, who was a strong, healthy, robust man; but the mother being small, slightly built, with light hair and thin skin, was readily susceptible to the action of the mercury. This application was made at 10:00 a. m. on the 13th, or but fifteen hours previous to the appearance of the toxic symptoms in the child. I mention this to show the rapidity with which the mercury entered the circulation and was secreted with the breast milk. I am certain that the mercury entered the system of the child from this source, rather than from the mercury that had been left upon the surface of the skin. I learned after my first visit, that the child awakened from its sleep soon after I had left the house. It began to scream with pain and at the same time there was a violent tenesmus and purging which kept up almost constantly until death ensued. This seems to me to be conclusive evidence that the case was one of mercurial poisoning. Up to this time the mother had shown no symptoms of the poison, but the child had been dead scarcely an hour when the mother was attacked by violent tenesmus and purging which exceeded anything I had previously seen. At times she remained as long as three or four hours upon a slop-jar without being able to resume the recumbent position. Quarter-grain doses of morphine, hypodermically, were the only thing that seemed to give any relief. These had to be administered every three or four hours. In addition, I prescribed 10 grains of pot. chlorate as an antidote to the mer-

*Reported to the Wayne County Medical Society,
April 17, 1902.

curial poison. At first very little of this drug was retained, on account of the vomiting. Upon the second day of the symptoms became so grave that Dr. Charles Douglas was called in consultation. I gave the doctor a brief history of the case, before he visited the patient, but he seemed somewhat skeptical about mercury acting with the rapidity which I had described; upon examining the patient's mouth, however, and seeing pus exude from the entire margin of the gums, the teeth somewhat loosened, he at once confirmed my diagnosis.

Suffice it to say that this condition lasted four or five days, when the toxic symptoms began to subside and the mother made a speedy recovery. The remarkable features of this case, in my estimation, are the small amount of surface to which the mercury was applied, the rapidity of its entering the circulation and the milk secretion and the speedy death of the child.

1993 Jefferson Avenue.

"Sic Transit."—A few years ago our gilded youth were bearded like the pard, or as nearly so as nature permitted: now what Parolles calls "valour's excrement" is practically a forbidden thing to "smart" young men, even as a decent covering for a feeble chin. Hygiene is equally ruthless. A German surgeon some time ago vehemently denounced the beard as a fertile source of infection during operations. Quite recently it has been stated, with what authority we are unable to say, that the German Emperor has decreed that those among his lieges who practice medicine or surgery shall cut off their beards. So sweeping an order sounds rather improbable even as coming from a potentate whose motto is *Summa lex regis voluntas*. But the German Emperor, like the prophet Habakkuk, is capable of anything when he is bitten by an idea. And such an order would be in accord with the

teachings of hygienic science, for your Teutonic professor is often like Bottom in his "translated" condition—marvelously hairy about the face. In another hemisphere it is announced that the Milk Commission of New York has ordered that hereafter smoothfaced men only shall be employed for milking cows and delivering milk to the various dépôts throughout the state. The reason given is that the dust from the stable is liable to infect the beard, which will collect and hold microbes that may readily impregnate the milk. Unless the beard can retrieve its sanitary character, we fear it is destined to become as rare as an appendix already is within the sphere of influence of certain transatlantic surgeons.—(*British Medical Journal*.)

A Good Hint.—Donovan in the *Medical Brief*, says: "In pulmonary edema, a one-fiftieth of a grain of strychnine, and a one-hundredth of a grain of atropine injected beneath the skin below the clavicle, repeated according to indications, will relieve and save many cases."

Normal Heart Sounds.—

The apex of the heart pulsates
Where fifth rib-space is wide,
Two inches 'neath the sternum
One inch to sternal side.

Hark to the sound aortic
On right at second space.
Hark for the pulmonary sound
Across at leftward space.

Hark to the mitral speaking
At apex; then, for sound
Tricuspid seek midsternum
Above the xiphoid's bound.

C. E. BOYNTON, M. D.
Los Banos, Cal.

Shocking!—

There was a young indigent Dr.
Called in by a woman named Prr
With a batt'ry he shr,
Quite senseless he knr,
Ten plunks was the sum that he sr.
—(*John Hancock Satchel*.)

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

WALTER C. BOYNTON, Manager.

—ISSUED BY—

THE DETROIT MEDICAL JOURNAL CO.,

NOTE.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, to 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., NOVEMBER, 1902.

THE LORENZ INCIDENT.

There has been considerable comment, both professional and lay, on the conduct of the Illinois board of health in obliging Dr. Adolph Lorenz, of Vienna, to submit to an examination before the board, after performing an operation on the daughter of J. Ogden Armour for the reduction of a congenital dislocation of the hip. This was the primary purpose of Dr. Lorenz's visit to Chicago, though he afterwards announced his intention of remaining in Chicago for a week or two to perform similar operations on children of the Chicago poor, in clinic. There appears to have been considerable misunderstanding in regard to the action of the board.

From an entirely reliable source it is learned that the board took no active part in requiring Dr. Lorenz to comply with the law passed by the Illinois legislature. The attention of the visiting surgeon was called to the existence of the law by one of his Chicago friends, and he at once presented himself before the board for examination, expressing his entire willingness to comply with the law as it existed. He was asked whether or not he intended to enter into general practice and how long he purposed remaining in Chicago. Dr. Lorenz made no claims to immunity, but cheerfully complied with the letter of the law, taking the examination and receiving the certificate which admitted

him to practice. He felt so little annoyed by the action of the board that he even thanked its members for their courtesy, expressing his thanks for the kindnesses they were able to show him under the law.

The entire attitude of the Vienna surgeon was admirable. He complied with the law of the state to which he came, after he had done the work he had come to do, and afterwards conducted a clinic of nine similar operations, in the presence of several hundred physicians, who were thus enabled to closely observe the technique of the Lorenz operation. The best of feeling appears to have prevailed on both sides; Dr. Lorenz acted like a resident of Vienna, where obedience to the laws is so necessary for the enjoyment of a quiet life or professional activity, and the Illinois board lived up to what its duty was, under the circumstances.

It would have been an easy matter for Dr. Lorenz to have evaded the examination. He could have set forth the claim that he was called merely in consultation on the Armour case, when the board would not have interfered, but he did not see fit to take this action. The law is framed and enforced for the benefit of the medical profession, and the Austrian authorities, according to Dr. Lorenz's own statement, would have dealt with an American physician much more stringently than the Illinois board did with him. Austria does not recognize eminence in Illinois as a reason for permitting a physician of that state to practice in Austria, for ever so brief a period, without a literal compliance with Austrian law.

The common council, at the next meeting of that body after Dr. Lorenz's visit to Chicago, passed resolutions of thanks to him for the service he had rendered to the medical profession and to the citizens of Chicago by his work among the poor of the city.

A CANADIAN VIEW OF IMMIGRATION.

For some time past the Canadian officials in charge of the bureau of immigration have realized that a very large number of undesirable immigrants, some of whom had already been refused admission into the United States, were drifting into Canadian territory. This condition may in a brief time produce intolerable conditions in some of the Canadian cities, and a step in the right direction was taken when the Canadian authorities undertook to prevent the reception of immigrants suffering from contagious diseases, or those whose mental or bodily condition would render them incapable of taking care of themselves, to become objects of charity in the land of their adoption. It is distinctly unfair to Canada that her authorities permit the landing of undesirable additions to the inhabitants, when sensible legislation would in a large measure check, if it did not prevent the practice. It is interesting to learn that steps are even now being taken to secure the deportation of immigrants examined and rejected by the United States authorities, who afterwards entered Canadian territory. We can only hope that this matter will be pushed to a conclusion and that Canada will take legal steps to rid herself of her uninvited and undesirable guests.

Canada suffers unduly in this regard, partially on account of her geographical position with relation to the United States. Immigrants who are headed for America pass through Canada in large numbers and when they are turned back at the American border they willingly sink down on Canadian soil, to become dwellers in the Dominion. Immigrants suffering from contagious diseases, or those who, from some bodily or mental condition are not fitted for self-support, should be turned back at once. In this country we have had many and unpleasant experiences with the immigrants who

came to the shores of America penniless, sick with a loathsome disease, perhaps filled with false and dangerous notions of a political nature, but in a general way welcomed into this country and permitted to remain a charge on the state or a care to relatives and friends already established here. Now that is changed. The immigration laws are strict of necessity and they are lived up to by the officials as completely as the conditions will permit. Indeed, it seems that sometimes they are more closely followed than the spirit of the law requires or expects, as two Syrian cases recently have shown—when two innocent natives of that country were locked in jail for days on the suspicion of being afflicted with a contagious disease which was afterwards shown not to be present in either. But laws that are protective must be strict; otherwise they fail utterly.

A full 2 per cent. of the immigrants examined at Castle Garden are unfit for entry into the United States as citizens and it is reasonable to suppose that Canada has the same general per cent. in her cases, since she draws her immigrants from the same localities that furnish new material for the American factories. She should take prompt and vigorous action against having her fair shores made the dumping-ground of the older nations. There were nearly 25,000 immigrants settling in Canada last year, and out of this it is reasonable to suppose that at least 400 were unfitted for emigration in the beginning. Then the United States must have furnished a comfortable addition to this number, out of its rejected candidates for admission into America.

Let Canada look promptly into this matter. It is one that touches her everywhere, from the individual to the great nation itself. There must be some intelligent restriction on the character of the immigrant who selects Canada as the place in which he will live without using his own efforts.

MEDICAL PATERNALISM.

Owing to the prevalence and the danger of tuberculosis in the United States, unusual interest attaches to the proposition recently made by Dr. G. A. Aschman, of Wheeling, W. Va., before the medical society of that state, to the effect that the physicians should band together in an effort to secure legislation looking forward to the establishment of a state sanitarium for consumptives. The proposition was submitted to a committee, the members of which referred it to the society's committee on legislation, with a strong recommendation that the members of the latter committee should use every effort to secure the establishment of a state sanitarium for the care of tuberculosis patients. The society itself unanimously adopted the recommendation, and considerable interest has been shown in a plan to mass the efforts of the profession in West Virginia with a view to seeing Dr. Ascher's suggestion carried out.

There is considerable food for thought in the suggestion of the West Virginian. It is recognized that the care of consumptives in a general hospital is a difficult matter, owing to lack of proper equipment and the means for successfully segregating the consumptives from other patients under the same roof. Public hospitals would need endowments much more generous in size than those which most of them now enjoy in order to adequately care for the sufferers from lung-diseases placed under their charge. The next step in the establishment of such a hospital by the state would be to have the legislature draw up a law providing for the commitment under proper circumstances of a person suffering from contagious lung trouble. Norway already follows this plan, and with success. There is no option with the patient in Norway. If he has consumption, he goes to the hospital, willy-nilly, and there he stays

until he is cured or until he dies. It is an open question just how far the Americans would go in bowing to legislation of this nature, and it is to be feared that protests loud and long would rise on all sides. If sanitaria are to be established, it must be done by the efforts of the medical profession and here is a chance for the doctors to do a little more missionary work. There seems to be little question of the desirability of securing proper treatment, with isolation, for consumptives; but the question of expediency promptly arises and with it a call for the consideration of a vast mass of detail.

We shall note with interest any action the legislature of West Virginia may take along this line, and we trust that if the sanitarium should be built in that state the southern example will be generally followed.

**EDITORIAL
NOTES**

The committee on the Senn Medal beg to call attention to the following conditions governing the competition for this medal for 1903:

1. A gold medal of suitable design is to be conferred on the member of the American Medical Association who shall present the best essay on some surgical subject.
2. This medal will be known as the Nicholas Senn Prize Medal.
3. The reward will be made under the following conditions: (a) The name of the author of each competing essay shall be enclosed in a sealed envelope bearing a suitable motto or device, the essay itself bearing the same motto or device. The title of the successful essay and the motto or device is to be read at the meeting at which the award is made, and the corresponding envelope to be then and

there opened and the name of the successful author announced. (b) All successful essays become the property of the Association. (c) The medal shall be conferred and honorable mention made of the two other essays considered worthy of this distinction, at a general meeting of the Association. (d) The competition is to be confined to those who at the time of entering the competition, as well as at the time of conferring the medal, shall be members of the American Medical Association. (e) The competition for the medal will be closed three months before the next annual meeting of the American Medical Association, and no essays will be received after March 1, 1903.

Communications may be addressed to any member of the committee, which consists of the following: Dr. James H. Dunn, chairman, Minneapolis; Dr. M. L. Harris, 100 State street, Chicago; Dr. Floyd W. McRae, Atlanta, Ga.

A carefully compiled report, from statistics gathered by the *Canadian Magazine of Medicine and Surgery* on the ratio of physicians to population in Canada is published in the current number of that magazine. It states that the whole number of doctors practicing in the different provinces and the Northwest territories is 1,417. This gives 1.009 physicians to every 1,000 of population. Further statistics show 1.349 per 1,000 in Manitoba; 1.207 in British Columbia; 1.14 in Ontario; 1.041 in Nova Scotia; .943 in the Northwest territories; .854 in Quebec; .807 in Prince Edward Island; and .733 in New Brunswick. Among the cities, Toronto has 2.006 per 1,000 and Montreal 1.075 per 1,000.

These figures show that there is a larger proportion of physicians in Canada than there is in any country in Europe, taking Prinsing's following figures, published in the *Centralblatt für All. Gesundheitspflege*, t. xxi., 1902, fasc. 5-6, page

218: Germany, .51; Austria, .41; Hungary, .28; Italy, .63; Switzerland, .51; France, .39; Spain, .71; Belgium, .52; England, .61; Ireland, .56; Scotland, .77; Denmark, .64; Norway, .53; Sweden, .27; Russia in Europe, .27. (These figures are based on the number of physicians per 1,000.) The only European city that surpasses Toronto in the number of its doctors to a thousand of population is Madrid, one of the most unhealthy cities on the Continent from a physician's point of view.

Dr. Beverley D. Harison, of Sault Ste. Marie, secretary of the Michigan State Board of Registration in Medicine, has furnished us with the following table, showing the results of the examination held in June last:

QUALIFICATION.	No. Marks	Per cent.
Denver University, Denver, Colo.	1662	87.47
Cincinnati College of Medicine, Cincinnati, Ohio	1407	74.52
Independent Medical College, Chicago, Ill.	1269	66.78
Memphis Hospital Medical College, Tenn.	1110	58.42
Trinity University Medical College, Toronto	1625	85.52
Trinity University Medical College, Toronto	1622	85.31
Wisconsin College of P. & S., Milwaukee	1512	79.57
Queen's University, Kingston	1700	89.47
Trinity Medical College, Toronto	1543	81.21
Trinity Medical College, Toronto	1467	77.21
Trinity Medical College, Toronto	1430	75.26
Krisbania University, Norway	1526	80.31
Cincinnati College of Medicine	1382	72.73
Iowa College of P. S.	763	40.53
Queen's University Med. Dept.	1484	78.10
Trinity University, Toronto	1511	79.52
Jenner Medical College, Chicago	1179	62.05
Ohio Medical College, Cinn.	1143	60.15
Toledo Medical College, Toledo, Ohio	1323	69.63
(Undergraduates)		
2½ courses of 8 months each at Grand Rapids Med. College	1382	73.26
4 courses of 8 months at Detroit Med. College	1324	69.68
3 courses of 9 months at Univ. of Michigan	1578	83.05
Required to pass—1425 marks, or 75 per cent.		

We cannot control the evil tongues of others, but a good life enables us to despise them.—Cato.

Press dispatches report that much regret was expressed in Berlin at the surprising lack of attendance of American physicians at the tuberculosis convention held in the German city the last of October. The only American who attended the congress was Dr. William Enger, of the United States Marine Hospital service, whose station is at present in Naples. The concensus of opinion on the part of delegates from other countries appears to be that the chief result of this year's congress has been to show the progress made by German sanatoria and by German inventors of scientific appliances. This, if true, may account for the slim American attendance.

On the evening of October 16 last, the association of hospital superintendents, in session at Philadelphia, Pennsylvania, elected the following officers: President, Dr. John Fehrenbach, of Cincinnati, Ohio; Vice-President, Dr. Charles O'Reilly, of Toronto, Ontario; Secretary, Daniel W. Test, of Philadelphia, Pennsylvania; Treasurer, A. W. Shaw, of Detroit, Michigan.

At the annual meeting of the Detroit Academy of Medicine, held on the evening of October 14, the following officers were elected: President, Dr. Robert W. Gillman; Vice-President, Dr. A. N. Collins; Secretary-Treasurer, Dr. Harrison D. Jenks; Director, Dr. Leartus Connor. The meeting was held at the residence of the retiring president, Dr. Arthur D. Holmes.

A meeting at Carsonville, Michigan, on October 17 last, resulted in the formation of the Sanilac County Medical Association, with the following officers: President, Dr. H. W. Smith, of Carsonville; Vice-President, Dr. Thomas S. Kingston, of Croswell; Secretary-Treasurer, Dr. George S. Tweedie, of Sanilac Center.

A report of the work of the Chicago Pasteur Institute, recently published, shows that a grand total of 1,538 cases have been treated in the institution since its inauguration in July, 1890. Seven deaths are reported, which would fix the mortality at 0.45 per cent.—a very creditable showing.

In Memoriam.—The following Latin tribute to Virchow was published in the *Muenchener Medicinische Wochenschrift*:

Summo cum ingenio
Morbos illustravit;
Explorando mortues
Vivos adjuvavit.
Vitae persecutus est
Intima arcana
Et ubique somnia
Dissipavit vana.
“Omni”, dixit, “cellula
E cellula exorta;
Tum doctrinum lucidae
Patetfacta porta.”
Quae reliquit opera
Perdiu vigebunt—
Magna haec vestigia
Non evanescebunt.

Lakeland Hospital Report.—The first biennial report of the Lakeland Private Hospital at Grosse Pointe has just been issued. Dr. Samuel Bell, who was formerly superintendent of the Upper Peninsula Hospital for the Insane, the superintendent of the institution, reports the following forms of disease under treatment: Melancholia, mania, paranoia, puerperal mania, epilepsy, incipient paresis, post-febrile melancholia and morphomania. Dr. Bell attributes the large percentage of cures—50 per cent.—to the system of individualization and special attention which he has inaugurated. He has demonstrated the fact that many cases of temporary mental aberration recover promptly under proper treatment.

NEW INSTRUMENTS & DEVICES

Mention of new instruments and devices in this department is entirely complimentary and articles illustrated are judged on their merits.

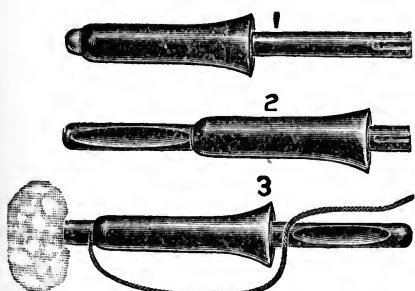
We invite manufacturers and physicians to send us matter suitable for publication under this head. A description of the device and an electrotype or half-tone with a base not greater than two and five-eighths inches should be sent.

Always mention the price of the article in question.

The management cannot undertake to return cuts unless postage for same accompanies the letter with which they are sent.

APPLICATOR FOR RECTAL WORK AND DISEASES OF WOMEN.

This device, designed by a Michigan physician, has been used successfully by him for a number of years, but has been placed on the market within comparatively recent times. Fig. 1 shows the applicator ready to pass into the rectum or the

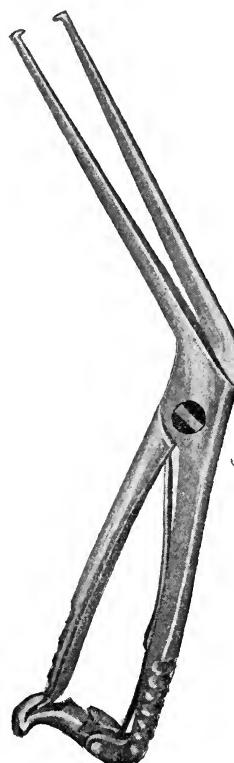


vagina; Fig. 2 illustrates the chamber for holding ointment or fluid and Fig. 3 shows tampon of cotton, medicated with powder, liquid or ointment. The tampon is first placed in the tube, which is then inserted into the vagina; the tube presses the tampon into the desired position in the os, when the tube is withdrawn far enough to liberate the cord attached to the tampon. The whole instrument is then withdrawn, leaving the tampon in situ.

The device may fairly be considered an efficient aid in the treatment of diseases of the rectum or for diseases of women. Its price is placed sufficiently low by the inventor to admit its being in every practitioner's bag.

JACKSON SEIZING FORCEPS.

This is a handy instrument for taking hold of incompletely detached masses which have been partially severed with the turbitome.



After the part has been caught with the teeth of the forceps and the handles of the latter locked together, the loop of a snare may be readily threaded over the forceps and pushed back to the point at which complete severance is desired. Traction on the forceps is employed to aid the separation. This instrument is also found to be useful in engaging polypi and other

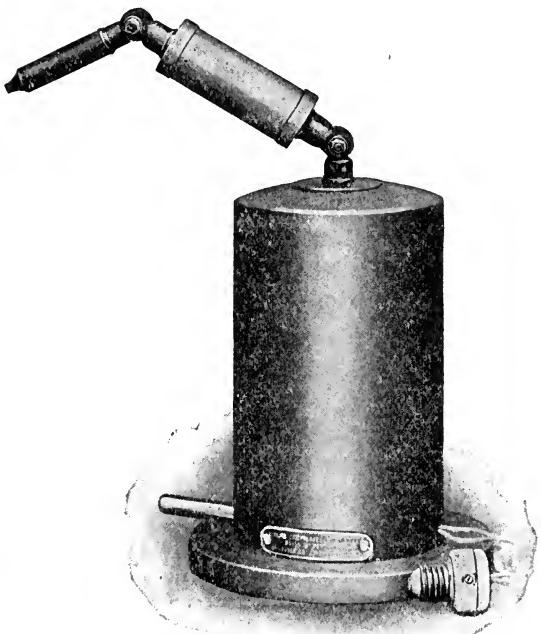
growths in the loop of a snare.

It is carefully designed for the purposes to which it is intended to be put, and retails for the sum of \$3.50.

TERRY ELECTRIC HEATER.

The therapeutic value of superheated dry air is so clearly established that the chief interest in connection with a discussion of the topic must be a description of late and improved methods of applying

the treatment. The device illustrated herewith shows an electric heater which is adaptable for use on all parts of the body—something that could not be said for the older forms of heater used, when it was necessary to enclose the parts to be treated in a sleeve or bag of some kind.



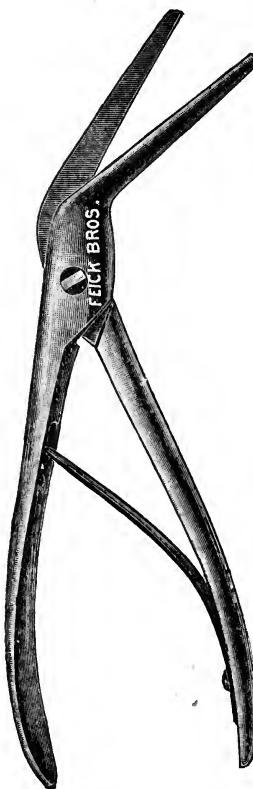
This form utilizes electricity as the agent for supplying heat, and the hot dry air, which passes through an air-tight chamber, is delivered onto the affected part from a tube, much in the same way that water is delivered from a hose. The nozzle can be turned in any direction, even downward, and a constant supply of heated air is assured. The force with which the hot air is delivered aids its penetrating power, and owing to the fact that the application can be concentrated, there is little waste of heat used.

The electric heater is the best and most convenient made by the manufacturers, who also make gas and alcohol heaters of the same type. The heater is operated by the 110-Volt direct or alternating current and furnishes abundant heat in a short time. It is light and easily port-

able, so thoroughly insulated as to be handled with ease and so strongly made that it should last for years. It costs \$25.00.

JACKSON TURBINOTOME.

This instrument for operation on the turbinate bodies was designed by Dr. Chevalier Jackson, of Pittsburg, in de-



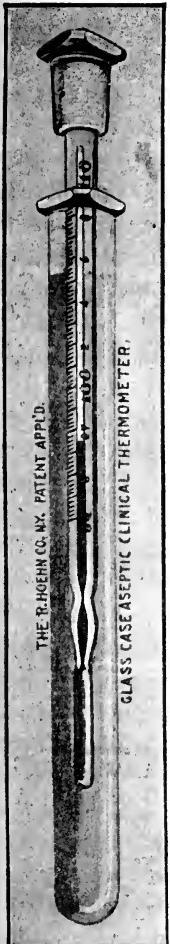
fault of a pair of bone-clipping scissors which were satisfactory to him. The turbinotomes are made right and left, in order that the under blade may be outermost to admit of its passing under the overhanging edge of the turbinated body. The blades are sufficiently narrow to admit of introduction in 90 per cent. of cases, while the broad bearing-surface at the lock gives the blades enough rigidity to shear through both hard and soft tis-

sues in a straight line, clipping the bone without trouble. The lock and the heavy portions of the instruments, owing to its peculiar construction, are kept outside the nose and below the operator's line of sight.

In some cases the doctor reports that the saw had to be used to make room for the blade of the turbinotome, but where the instrument was used alone, he reports that the complete operation itself took less than a minute. The instruments are well made and cost \$5.50 each.

ASEPTIC GLASS CASE CLINICAL THERMOMETER.

Numerous devices are already on the market for furnishing the physician with a clinical thermometer which shall be aseptic at the time it is used. Our illustration shows the latest, and in many respects the best form of this device. It consists of a heavy glass tube, which can be filled with some antiseptic solution in which the stock of the thermometer itself is immersed. A particularly commendable feature of this form of thermometer case is the manner in which an hermetic joint is secured, insuring against leakage and evaporation. The head of the thermometer has ground-glass sides, and the inside of the rim of the container is also ground. This provides for an absolutely tight joint and still presents no difficulty



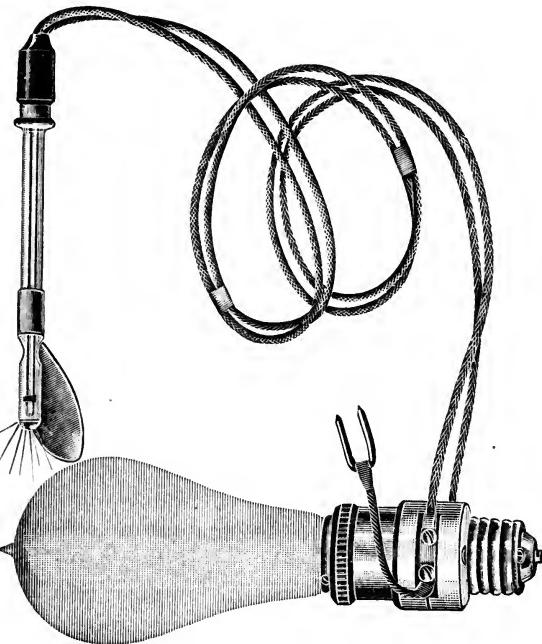
in placing the thermometer in the case, or in drawing it when it is needed. Like many other good things, it is very simple, but effectual.

The thermometer itself is carefully made, and with each there comes a card, showing that it has been compared with the Yale standard, and noting the correction, if any. The half-minute thermometer and case costs \$1.50.

The more one speaks of himself, the less he likes to hear another talked of.—Lavater.

JAEGER ASEPTIC MOUTH LAMP.

This aid to the surgeon embodies all the features of the true aseptic lamp. It is made entirely of glass and can be sterilized without injury. It has a three candle-power lamp, light from which is turned on or off by a twist of the handle. The



lamp is arranged for operating on any regular street circuit, either alternating or direct, the manufacturers furnishing attachments for the Edison, Westinghouse or Thompson-Houston receptacles. This insures a steady light at all times. For a current from 100 to 120 Volts is used a 16 C. P. standard lamp of 3½ Watts efficiency, and for the 50 to 60 Volt alternating current an 8 C. P. lamp is supplied. The small illuminating lamp with the outfit is blown with a heavy magnifying lens, the whole being made of heavy crystal glass. An adjustable mirror forms part of the outfit for diagnostic work, and it is easily placed in any desired position, a sleeve holding it firmly to the shank of the lamp shaft.

By means of the cut-out illustrated in the cut, the light from the street circuit

lamp may be utilized, by simply pushing the fork over the unoccupied screw head. This cuts out the light of the diagnostic lamp. The outfit, ready for attachment to the socket, retails for \$5.00. This does not include the electric light bulb.

THERAPEUTIC BREVITIES

Strong Carbolic in Fixation of Movable Kidney.—Dr. Cowardine, in the *Lancet*, suggests a novel means for securing fixation of a movable kidney. The plan consists in freely painting the whole surface of the kidney, except the hilum, with the strongest liquid carbolic acid, so that the surface becomes covered with granulation tissue within a few days. The painting is best done after the supporting sutures, etc., have been inserted, but before they are tied, by means of a swab containing the liquid not in excess. In four of the cases—those in which the kidneys were suspended by gauze slings and packings—the author was able to watch the surface of the kidney for from ten days to three weeks, and observed the granulations and lymph rapidly formed, followed by intimate and firm incorporation of the kidney with the surrounding tissues. The acid seems to prevent, in addition, subsequent pyrexia and has no disadvantages. Six cases with good results are reported.

Second-Year Feeding.—Dr. T. J. Biggs makes the following suggestions and report: In the course of the second year there comes a time when the milk diet begins to be insufficient for the growing child, and Nature calls for a change, while yet the system is in many cases unprepared for solid food. This kind of deadlock results in diarrhoea or constipation, anaemia, restlessness, fretfulness, etc. In

such cases the fit and radical remedy will be found in the administration of say ten drops of bovinine in a little milk, at intervals of three hours. Little Robert Valverdie, a patient who came under my care in the condition of malnutrition above described (after trying all the usual medical helps with no benefit), was immediately restored by the direct blood treatment. On the second day of taking bovinine, the constipation and other trouble began to be relieved, and on the third day all signs of ill health had disappeared as if by magic. This simple treatment was continued for three weeks, the child thriving beautifully.

Gall-Bladder Removed Through Lumbar Incision.—At the last meeting of the American Association of Obstetricians and Gynecologists, held at Washington, D. C., September 16-18, 1902, Dr. W. P. Manton, of Detroit, reported a case of removal of the gall-bladder through the lumbar incision. The patient, aet. 38, 5 children and 2 abortions, had never been robust, but was able to attend to her domestic duties. She had suffered from a number of gastric attacks, but there had been an entire absence of symptoms pointing to disease of the biliary tract. Examination showed the left kidney to be loose, while the right kidney appeared to be double its normal size, displaced downward and inward, and with certain projections, which led to the diagnosis of nephroptosis with probably cystic metamorphosis of the renal substance. At the operation through the nephropexy incision, the fatty capsule of the kidney was found to be embedded in a mass of adhesions, a condition which gave rise to the appearance of enlargement. The kidney, which was normal in size and structure, was delivered onto the back and placed astride the wound. Below the kidney pouch a distended gall-bladder, containing fluid and 19 gall-stones

the size of hazelnuts, was found, surrounded by adhesions. This was enucleated, tied off at the cystic duct, and removed. The fluid contents of the sac contained a bacillus having the morphology and staining qualities of the colon bacillus, and a long large rod which stained violet by Gram's method; but no staphylococci or streptococci were found. The kidney capsule was split and peeled off to the lateral line, fixation sutures introduced, and the organ returned to its place. A strip of gauze for drainage was carried from the upper angle of the external wound to the stump of the cystic duct. The patient made a good recovery. It is impossible to state whether the condition was a congenital anomaly or the result of the walling-off of the gall-bladder by adhesions. The operation was entirely extra-peritoneal. This is the first recorded instance of extirpation of the gall-bladder through the lumbar incision. Dr. Manton believes that on account of the anatomical position of the gall-bladder, in uncomplicated disorders of the biliary tract, the anterior abdominal incision is the one of choice, but that when nephroptosis or morbid condition of the kidney exists demanding operative treatment, together with enlargement of the gall-bladder from stones or fluid accumulation, the lumbar route offers certain advantages. He pays tribute to Edebohls, whose pioneer work has opened up this previously uncultivated field of surgery.

Keep Women Out for Their Own Sakes.—Professor Zimmer, of Berlin, has been investigating the causes of insanity among women, and has come to the conclusion that if women are admitted into competition with men the inevitable result will be a tremendous increase of insanity among the women. He finds that the percentage of women teachers who become insane is almost double that of

the men teachers. Inquiries were also made about women employed as telegraphers, sales clerks, and in the telephone service, and, furthermore, with regard to women engaged in the Swiss watchmaking trade. These inquiries showed that in the occupations mentioned a far larger proportion of women than men succumb to mental disorders.—(*Medical Times*.)

Hints.—

1. Indigestion and consumption is a bad combination.
2. Tapeworms are said not to thrive on a pure cocoanut diet.
3. Blood poisoning, red line up arm; Ichthyol pure, locally, gutta percha and bandages; Calcium sulphide internally; Suspension of the arm, and catharsis.
4. Try goosegrease, 12 per cent. solution of Iodine, for ringworm.
5. Use cranberry juice for fever-thirst and vomiting.
6. Tonsillitis points to rheumatism and on to endocarditis.
7. Gonorrhœa has *its* rheumatism and endocarditis.
8. The far-sighted treatment for gonorrhœa and for tonsillitis is Calcium sulphide.
9. There is an "explosive nervousness" and delirium, a nervous irritability, etc., with the imprudent use of strychnine as a tonic.
10. When symptoms are irritable stomach and slight constipation give Sodium Phosphate 3ss every 2 or 3 hours.—(C. E. Boynton, M. D., Los Banos, Cal.)

In Acute Bronchitis.—Lyon, in *Le Progrès Médical*, gives the following prescription:

- R Tinct. scillæ, m. x.
- Syr. codeinæ, 5v.
- Ext. hyoscyami, g. j.
- Aq. aurantiiflorum, 3iss.
- Julep, 5iv.
- M. Sig. One dessertspoonful.

NOTES & COMMENT

Artificial Testicles.—One of the latest things of interest, as being quite out of the ordinary, is the insertion of artificial testicles. When a patient has undergone removal of one or both of the glands he may have them replaced with ovoids of celluloid of the required size, the scrotum being sewed up around them. It is said that several cases of replacement of this kind have been performed at the expressed desire of the patient and if this is true it is a striking commentary on masculine vanity. Why a man should care to have one of these celluloid bodies placed in the scrotal sac is something that is a trifle difficult to understand; but something novel is always cropping up in medical and surgical lines and if the patient wants artificial testicles we see no reason why he should not have them.

Only One Finished.—A particularly striking object lesson was furnished by Class A. for automobiles 1000 pounds and under, in the recent New York-Boston "Reliability Run."

Fourteen carriages started in this class, fourteen drivers looked forward to new records and fresh honors, but alas, thirteen, the unlucky thirteen, fell by the wayside and it was left for R. M. Owen in The Oldsmobile to finish in solitary glory.

In addition to being the victor in its class, the Oldsmobile made the whole run without a single penalized stop of any kind, thus indisputably demonstrating the high degree of perfection attained by the Olds Motor Works in this world popular runabout which is "Built to run and does it."

The Obstetric Fee.—The time-honored custom of accepting a case of confinement for a certain fixed fee is a poor one, and should certainly be replaced by some more equitable system of charging. When the fee is a generous one it is all right; but to attempt to do properly the work involved in caring for a woman before, during, and after confinement for ten dollars—the average fee—is no doubt the cause of many a case of puerperal infection owing to the careless manner in which the work is performed by the physician, who is in a hurry to get back to his office or to make other calls which are more remunerative. A better plan would be to charge for each visit or office call made before confinement, for each examination of the urine, for the amount of time spent at the time of the confinement, and for each visit made thereafter.—(*Medical Age*.)

Novel Protective Dressing.—Karl Springer, writing in the *Centralblatt für Chirurgie*, has his article reviewed in the *Brief* as follows:

Karl Springer describes a new protective dressing, which is intended especially for use in plastic operations, skin grafting, etc., where it is important to keep the dressing from adhering to the surface of the wound. The various materials, such as rubber tissue, oiled silk, oiled gauze, etc., which are in general use for this purpose, are open to the objection that they stand sterilization by heat but once, after which they must be preserved in some antiseptic solution, which often impairs their strength or pliability, and always requires washing off in sterile water to remove before use.

The substance which the author employs as a substitute is paraffin of a melting point of 45° to 47° C. If a small piece of this is thrown on the surface of boiling water, it is first melted, and then on

cooling forms a thin, floating pellicle, which may be handled with forceps, and cut to the proper shape with scissors. The technique of its practical application is simple. A flat vessel provided with a cover is partially filled with water, and brought to a boiling point. A piece of paraffin is then thrown in, and the boiling continued for ten minutes. The vessel is then placed in another dish of cold water, causing the paraffin to harden as a thin pellicle on the surface. As soon as this occurs, the vessel is placed in water at a little above body temperature, which keeps the pellicle soft and pliable. Holes for drainage may then be punctured through it with a sterile needle, and after cutting to shape, it is lifted with forceps, and applied to the wound with the water side down. The thickness may easily be controlled as experience dictates by the size of the lump of paraffin used.

Up to the Doctor at Panama.—American Medicine says: It has been said that every tie of the Panama railroad represented a sacrificed life. In the building of the canal our government and our profession owe it to the world that no such disgrace, suffering and loss of life shall take place. At this time, moreover, it is absolutely unnecessary, because our knowledge of preventive and curative medicine is such as to make it entirely possible to carry out the undertaking without any such scandals. This is indeed demonstrated by the experience in Cuba. A similar foresight and science may be realized in building the canal. For years 10,000 or 20,000 workmen must live and work there, and if stringent regulations are enforced as to the prevention of typhoid and other infectious diseases there is no need that the mortality shall be much or any higher than in enterprises carried out in the United States. An adequate force of good medical men must be provided, well-equipped hospitals must

be supplied, and an almost military discipline should be maintained as to the prevention of disease and sanitation. The medical profession of our country has here another opportunity to exhibit to the world the national and professional qualities which were so splendidly shown in Cuba.

Shall Syphilitic Males Be Emasculated?—The syphilitic taint which is permeating slaf blood has in recent years been brought before the council of state. What is to be done? A drastic remedy has been proposed, and, although not on the statute-book, is, I believe, as quietly and expeditiously carried out as a modern removal of the vermiform appendix. I say "believe," because in different parts of the Russian union I was so often thus informed, and credibly, that "there must be something in it." I refer to the castration of syphilitic subjects, *nolens volens*. There is no gainsaying the fact that the remedy is a specific one, and, on the subject operated on, it is pretty certain his career as a propagator of venereal diseases is effectively checked.

But the Russian castration idea is an old one. Even in our own America, castration has been proposed for putting a stop to the procreative faculties of professional criminals. And one of the salient recommendations proposed and carried to unanimity at the international convention for remedying the Jew-evil, held at Paris two years ago, was for joint-action by all countries in emasculating the Jew residents. And the proposition actually came from the American delegate.

But, however efficacious these remedies may be, public opinion is not yet ripe enough for such drastic measures. It may be so twenty years hence.—*Medical News*.

Contentment with the divine will is the best remedy we can apply to misfortunes.—Sir W. Temple.

BOOK REVIEWS

Diseases of the Stomach. Their Special Pathology, Diagnosis and Treatment, with Sections on Anatomy, Physiology, Chemical and Microscopical Examination of Stomach Contents, Dietetics, Surgery of Stomach, Etc. By John C. Hemmeter, M. D., Philos, D., Professor in the Medical Department of the University Hospital, Baltimore, Md.; Consultant to the University Hospital, and Director of the Clinical Laboratory; Author of "A Treatise on Diseases of the Intestines", Etc. With many Original Illustrations, Many of Them in Colors, and a Lithograph Frontispiece. Third Edition. Size, $9\frac{1}{2} \times 6$ inches. Pages, 872. Price, Cloth, \$6.00 Net. P. Blakiston's Son & Co., Publishers, 1012 Walnut St., Philadelphia, Pa.

This is the third edition of this work since 1897, but so many important alterations and additions have been made that the present form is to all intents and purposes an entirely new book. One of the most striking features of this edition is the emphasis that has been placed on the factor of differential diagnosis and some new matter has been written on the subject of ulcer and carcinoma, together with a chapter on gastric lipase. The importance which diseases of the stomach have assumed in this age of special specialization makes literature along this line of interest to a constantly increasing number of readers, and no one knows better than Hemmeter how to select that which is of value in new ideas and theories and how to reject that which is not proper for consideration. The book has been brought thoroughly down to date and it treats exhaustively of the various diseases of the stomach, their etiology, treatment and cure. In it are found the

records of an unusually interesting and successful practice in this specialty and the authoritativeness of it all should meet with hearty recognition from the author's co-workers in the field of medicine.

The illustrations are of unusual interest and value, the colored plates being particularly excellent in finish. The publishers have ably seconded Hemmeter's efforts to produce an admirable book. Special features include a tabulation of the literature on many of the diseases mentioned and a well-compiled table on the differential diagnosis, and the appendix contains a list of the authors represented, together with an index of subjects.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, Professor of Therapeutics and *Materia Medica* in the Jefferson Medical College of Philadelphia; Laureate of the Royal Academy of Medicine in Belgium, Etc., Etc.; Assisted by H. R. M. Landis, M. D., Assistant Physician to the Out-Patient Department of the Jefferson College Hospital. Volume III. September, 1902. Diseases of the Thorax and its Viscera, Including the Heart, Lungs and Bloodvessels—Dermatology and Syphilis—Diseases of the Nervous System—Obstetrics. Pages, 417. Size, $5\frac{3}{4} \times 9\frac{3}{4}$ inches. Lea Brothers & Co., Publishers, Philadelphia and New York.

Contributions of unusual interest and merit form part of the third volume in this valuable series of books. The contributors are William Ewart, M. D., F. R. C. P., William S. Gottheil, M. D., Richard C. Norris, M. D., and William G. Spiller, M. D. Ewart treats of diseases of the thorax and devotes much of the space allotted to him to a discussion of the advances made in the treatment of

pulmonary tuberculosis. He sets his facts forth clearly and succinctly and puts much of value into his subject. Gottheil is the writer on syphilis and dermatology and his contribution is well illustrated from photographs of rare and unusual cases. Among the cases reported under dermatology is one of canities, and a report is given of an extremely successful treatment of a case of severe burns, over one-fifth of the entire body, with picric acid.

Spiller's contribution on nervous diseases gives the bulk of its space to a discussion of diseases of the brain, where the treatment of out of the ordinary cases is carefully laid down. Under the head of obstetrics, Norris reports a number of interesting cases and has some excellent general suggestions as to treatment to offer. A carefully arranged index furnishes a ready reference for the reader.

General Paresis, Practical and Clinical.

By Robert Howland Chase, A. M., M. D., Physician-in-Chief, Friends Asylum for the Insane; Late Resident Physician, State Hospital, Norristown, Pa.; Member of the American Medico-Psychological Association; Fellow of the College of Physicians, Philadelphia. Illustrated. Pages, 282. P. Blakiston's Son & Co., Publishers, 1012 Walnut St., Philadelphia, Pa., 1902.

This present age is one of condensation, in which short forms of literature are the most likely to be of value. In medical books, it is true, there are some which, by the very nature of the subject they treat, must be voluminous; but there is a growing tendency, where it is possible, toward compilation and condensation. Chase's book is a sample of what can be done by intelligent work along this line. He recognizes, as do some others, that the general practitioner and the family physician is in many cases called to make a first or partial diagnosis

of cases which afterwards properly come under the care of a specialist. The medico-legal aspect of the diagnosis of insanity is not the least important of its many-sided interest and the family physician must on occasion be prepared to sit in judgment on a man's reason.

With a desire to give the physician something definite upon which to go, Chase has written this book, which is detailed in spite of its comparative smallness. Abstracts of reports on cases of paresis in all stages are given, furnishing valuable diagnostic material, and a number of photographs of the facial expression in more or less advanced paretic conditions aid in the establishment of a correct diagnosis. Considerable space is devoted to a chapter on etiology, in which this important branch of the study is fully gone into, the text being supplemented by more reports of cases observed in hospitals where the full history of the case could be obtained. In a convenient form Chase has given us an authoritative book, which should be useful to the profession.

The Diseases of Infancy and Childhood.

For the Use of Students and Practitioners of Medicine. By L. Emmett Holt, M. D., LL. D., Professor of Diseases of Children in the College of Physicians and Surgeons (Columbia University) New York; Attending Physician to the Babies' and Foundling Hospitals, New York; Etc., Etc. With 225 Illustrations, Including Nine Colored Plates. Pages, 1136. Second Edition, Revised and Enlarged. Price, Cloth, \$6.50 Net. D. Appleton & Co., Publishers, New York.

The growing importance of the diseases of children as a special branch of the practice of medicine has given rise to a number of excellent text-books on the subject, one of the best of which is the volume under consideration. The same importance of the subject is enhanced by

the recent knowledge made possible by individual investigation, so that a thoroughly modern text-book is a desideratum to the student, and to the practitioner who desires to keep abreast of his fellow practitioners who are working along this line. Holt's book is admirable in many respects. It is perhaps less richly illustrated than other works on the same topic, but the illustrations that are furnished are practical and valuable, while the insertion of numerous charts, tables and diagrams adds much to its convenience ; a book for the student.

The chapters on milk and infant-feeding, subjects which particularly engage the attention of the pediatrician, have been re-written in this edition and considerable new material has been incorporated with the text. Illustrative weight-charts are published for the convenience of the readers. Due importance is given to the diseases of the digestive system, while the specific infectious diseases are treated at some length. There is also a capital section on the diseases of the circulatory system.

Definite suggestions are given for the care of the infant and of the child. The book is clear, practical and concise.

Typhoid Fever. By J. T. Moore, M. D., M. C. P. S., Professor of Theory and Practice of Medicine, Medical Department of Hamline University, Minneapolis, Minn. Pages, 159. Price, \$1.00, Net. G. P. Engelhard & Co., Chicago, 1902.

This monograph is the result of Moore's extended studies on the literature of typhoid fever, which he finds representing the widely differing views of the various writers and investigators. It is his object to condense their findings on the subject and to add to the condensation some of the results gathered from his own investigations along the same line. He has comfortably accomplished

this and has condensed his work into the space of less than 160 pages. His little book is especially written for physicians in districts in which large medical libraries are not available, in the hope that they may find sufficient material for a comprehensive knowledge of the ideas and opinions of writers on typhoid fever.

The carefulness with which the work has been done, the compact form into which it is put and the low price of the book itself are strong factors in its usefulness to the physician.

Hemoglobin Scale. Devised by T. W. Tallquist. A Convenient Form of Device for Estimating Hemoglobin. Pages, 50. Price, Postpaid, \$1.50. Wentzel Hagelstam, Publisher, Helsingfors, Finland. Edward Pennock, Importer, 3609 Woodland Avenue, Philadelphia, Pa.

This means of hemoglobin estimation takes the form of fifty sheets of filter paper of standard quality, each sheet being divided in three by perforations, and a color scale. The latter is composed of ten shades, ranging from 10 to 100. The drop of undiluted blood is permitted to soak into the piece of filter paper and to stand until it has lost its gloss, but before it is thoroughly dry. Comparison between the color of the blood-spot and the colors of the scale gives a close estimation for hemoglobin. Cabot says of this device: "Errors of ten per cent. are possible, but it is my belief that far greater errors are frequently made with v Fleischl's or Oliver's instrument in the hands of the great majority of physicians". It is certainly in a most convenient form, and as opportunity for 150 tests is given the cost is not great.

He is happy whose circumstances suit his temper; but he is more excellent who can suit his temper to any circumstances —Hume.

DETROIT MEDICAL JOURNAL

MAC

ORIGINAL ARTICLES

DISEASE OF THE THYROID GLAND AS A CAUSE OF FUNCTIONAL SENSORY DISORDERS.*

BY E. L. SHURLY, M. D.,
Detroit, Mich.

In discussing diseases of the Thyroid Gland there come to mind ordinarily the conditions known as Bronchocele (common Goitre,) Exophthalmic goitre (Graves' disease), Acquired Atrophy of the Thyroid Gland, (Myxoedema) and Congenital Atrophy (Cretinism). While at the same time one may be reminded in this connection of the many questions relating to the unknown abnormalities of the adjacent thymous gland which are supposed to be the cause, at least partially, of infantile marasmus, laryngismus stridulous and various nutritive disorders such as arthritis deformans, hyperostosis, etc. But the various degrees of functional derangement and the lesser degrees of structural alteration which may occur is seldom or never kept in mind! It is not my object, however, to take the time to discuss at length the several forms of

goitre or the various clinical pictures supposed to be connected with the intimately connected thymous gland, but in order to reach the practical points which I desire to present for your consideration, it will be necessary to briefly allude to some phase of the subject in general terms. In the first place, it must be remembered that the thyroid gland has been found with two distinct classes of change, denominated hypertrophy and atrophy, each of which presents phenomena in accordance with the interference or suppression of its secretion.

The structural aspects, aside from the mechanical effects of pressure upon adjacent parts, have little to do with the clinical history of any given patient unless the function of the organ, namely its secretion, is altered or diminished. Thus we may have a considerable degree of hypertrophy without any particular physiologic derangement, or a comparatively small amount of atrophy associated with dangerous symptoms if the colloid secretion be suppressed or altered very much.

The pathology of exophthalmic goitre

Vol. 2, No. 9.

*Read before the Shiawasse County Medical Society, November 11, 1902.

is fraught with vexatious problems, for it is still a matter of controversy whether the essential pathogenesis of this well-known disease is to be attributed to disease of the central nervous system, the cervical ganglia of the sympathetic, or to the thyroid gland itself. A majority of pathologists and clinicians probably lean toward the theory that the gland itself is the primary seat of the disease, notwithstanding, as you well know, that quite a number of cases are on record of alleviation or cure from surgical operations performed on the sympathetic nerve or its ganglia; and although as a matter of fact the secretion of the thyroid gland contains constituents which are absolutely necessary to the nutrition of the body, integrity of the blood, and the central nervous system, yet upon what the biochemical effects of this—as well as the other internal secretions—upon the economy depends, has not yet been precisely discovered,—for this rich field of physiological chemistry has been but recently opened up. To cite an example of what may be expected, I would mention the recent discovery of a third very important secretion or ferment produced by the pancreas, which is of such vital importance that its deficiency or absence deranges the whole line of chemical action connected with the digestion and assimilation of the hydrocarbons; also, the discovery of new internal secretions or ferments produced by the liver, spleen and intestines. In the light of these expositions, therefore, it is not too much to assume that the full or complete function of the thyroid gland has not yet been accounted for. It is noted, for instance, that certain cases of hypertrophy presenting great augmentation of the stroma are not productive of the clinical signs of exophthalmic goitre, while other instances presenting intense fibrosis with atrophy of the thyroid vesicles very promptly and constantly give rise to neuroses and gen-

eral nutritional changes of a threatening character.

Besides this, there are instances on record of speedy death following the introduction by accident of the normal thyroid secretion into the blood, thus illustrating the toxic character of this secretion when introduced directly, instead of through the lymphatic vessels into the blood. If these several observations therefore be correct, we must conclude that the various internal secretions—especially of the thyroid gland—may be either soluble toxines or ferments, belonging to the class of “soluble ferments.” If, as Schneider has well said, “Life consists of a consecutive line of constructive fermentation,” the obverse may be as axiomatic—that disease consists of a consecutive process of retrograde or destructive fermentation. Recent discoveries have shown that many of the physiological processes which were supposed to be merely chemical or mechanical ones are bio-chemical for instance, the exchange in the process of respiration between oxygen and carbon dioxide are now known to be accomplished through the intervention of a ferment named oxydase and the ultimate changes of material in the intestine are likewise due to specific ferments, instead of to simple osmosis.

That these ferments do not depend always upon microbiosis is exemplified by the wonderful discovery of Bückner, as you will remember, who ground up growing yeast cells, expressed and filtered their juice and with the expressed fluid was able to induce all the characteristic fermentation produced by these plants in their integrity, thus showing that fermentation may take place without the contact of living organisms. In this connection the discovery of Conheim is highly interesting. He found that he could reverse the order of a given fermentation (malt) by altering the conditions and the material, so that the very same ferment

would reproduce the substance that it had split up. Thus one may conjecture that a physiological process of fermentation might be so altered by conditions as to become a morbid process and develop disease.

When we reflect upon the continuous additions to our knowledge which are being made by physiologic-chemistry, biology and bacteriology, such as the demonstration of the hitherto unknown bodies called lysins and toxines as recently brought out by the study of "immunity", it ought not to surprise us to learn that many of the obscure and complex groupings of the symptoms of disease both classified and unclassified may be actually due to alterations of these internal secretions or their accompanying enzymes. Take for instance, the colloid secretion of the thyroid gland. It was formerly supposed to consist mainly of mucin and salts. It is now stated to contain besides its several albuminoid or proteid constituents, its thyreotoxin and salts, iodothyron, iodin, xanthin, hypoxanthin, inosit, creatin, and sarcolactic acid. It is therefore a highly complex substance. Now if in its integrity as an internal secretion normally passing through the lymphatic system into the blood, the thyroid secretion is absolutely necessary to the welfare of the economy, it seems obvious that, should any untoward change take place—not only in its quantity, but in its quality—either chemical or molecular, according to degree, a corresponding disturbance in the physiologic processes of the body will follow. That this does occur more often than is observed, I am convinced, and it is undoubtedly the foundation of several of the neurotic and haemic disorders, which at times seem so obscure in their origin.

Take for example, the well-known disease called Exophthalmic Goitre—never endemic, never climatic. What are the paramount signs? Tachycardia, great

nervous perturbation, deposits of fat in the orbits and elsewhere in the body, lymph and blood changes. We meet with cases however, in which one or more of these classical signs are absent or not salient, characterized by paræsthesia, insomnia, anæmia, so-called hypochondria, dyspepsia, gastroptosis, etc. It is to these affections that I desire to call your attention. The so-called hypochondria and persistent hysteria are well known to every practitioner. How often do we fail in tracing their origin? I believe that hypochondria, paræsthesia and persistent hysteria are among the most puzzling complaints which beset the practitioner.

Reflection upon the analogy between the early syndromes of obscure cases of hypochondria and paræsthesia and those of exophthalmic goitre led me first to the hypothesis and then to the observation that the great sympathetic and its connecting ganglia were in many instances the principal field of disturbance, and although often no material change in the structure of the thyroid gland could be observed, yet some derangement of the character of its secretion might possibly lie at the foundation of the disorder. That this conclusion is not without a basis, clinical experience has demonstrated, for a number of cases have been relieved by pursuing a therapy on the lines of such an assumption, viz.: That where a disease of the thyroid gland, with alteration of its colloid secretion, existed, the administration of either thyroid extract, or iodin, more or less combined with potassium nitrate, hyoscyamous, chloral hydrate or camphor monobromate has seemed to prove the truth of the deduction, in some cases.

Indeed, the treatment of many cases of paræsthesia pharyngea especially in this way, has been very satisfactory. In conclusion, I will relate briefly one case of so-called hypochondriasis with pharyngeal paræsthesia:—An intelligent young

man, twenty years old, of good habits, consulted me for a growing complaint referable to his throat. The symptoms consisted of a sensation of choking, burning, itching, and a feeling of soreness. These symptoms had no relation to his eating or digestion; were not regularly intermittent nor remittent. His mentality was normal—excepting that he worried about himself and thereby became depressed. By introspection he imagined at times that all sorts of diseases were coming upon him. Like all such patients, he felt (as he should not, of course) the ordinary physiological processes going on in the body—especially of the stomach and intestines, and thought them to be morbid signs. No structural derangement of any of his organs could be made out. There was no abnormality of the pharynx, larynx nor respiratory organs. The heart seemed normal, but disturbed in rhythm (tachycardia, etc.) He suffered somewhat from insomnia, although having a responsible commercial position he was not over-worked nor over-worried in that respect. No mental or physical trouble could be found to account for his condition: although no abnormality of the thyroid gland could be observed, yet he was treated with extract of thyroid gland and iodine, alternately, week about. In addition, hydrate of chloral was given once daily, to act upon the sympathetic nerve. The extract of thyroid gland disturbed the circulation and excited him during the first week of its administration, but soon showed no untoward effects. At the end of the second week he began to improve rapidly and no chloral hydrate was taken by him after the first week. At the end of five weeks he was practically well and has since continued in health. Where there is any evidence of thyroid hypertrophy, potassium nitrate ought to be administered, first for a period of a week or ten days: after that, iodine in doses of one-twelfth of a grain,

either alone or in alternation with thyroid gland extract. When tachycardia and vaso-motor disturbances are very prominent symptoms, the iodine and chloral hydrate are especially indicated. These clinical observations and the therapy based upon them would seem more empirical than scientific. However, the multitudinous observation of sympathetic nerve-disturbance following fibrosis of the thyroid gland and consequent alteration of its secretion, and the fact that the functional disorders of sensation noted in paræsthesia and hypochondria are likewise coupled with disorder of the sympathetic system or sensory centres would give a rational character to the conviction that either a certain degree of diminution of the thyroid colloid secretion or its alteration, might often be held responsible for the pathologic phenomena in question.

32 Adams Avenue, West.

Easy To Try.—*The Family Doctor*, a London publication, reports the following case: A young girl for four days without cessation from singultus, the attack being due, apparently, to some gastric disorder. When she put out her tongue for a few seconds it was found the hiccough ceased. She was then ordered to stick out this member at regular intervals for a few minutes, at the termination of which only a few slight spasms followed. She was then ordered to repeat, when the singultus ceased altogether, and did not again return. It, therefore, would seem to be proper to try continuous or rhythmic traction of the tongue in these cases.

Old Peoples' Colds.—*The Southern Practitioner* suggests the following as a remedy:

- R Spt. ammon. aromat, f ʒ i.
- Spt. chlorof., f ʒ ii.
- Aq. menth. pip., q. s. ad f ʒ iii.
- M. Sig. Teaspoonful every four hours

**THE MENOPAUSE.—ITS SIGNIFICANCE,
WITH DEDUCTIONS THEREFROM.***BY M. V. MEDDAUGH, M. D.,
Detroit, Mich.

In glancing over the almost endless list of topics related to medicine and surgery, it occurred to the essayist that the time of this society might for one session be profitably employed in considering that interesting and important event of woman's physical life, viz., the Climacteric, or Menopause.

With its general features and predominating characteristics, and also as an invariable phenomenon of a particular period in the life of the female, we are all more or less familiar.

Clinical and physical observations, however, as made by careful investigators, seem to justify the statement that we have failed to fully recognize its significance and appreciate the duties and responsibilities that we assume as medical advisers to the woman. Certainly, we have greatly underestimated its influences and far-reaching effects, not only on her physical being, but on her mental and moral state as well. What is the true nature of this process that so markedly and invariably produces such an impression on the threefold nature of the woman? We have been too prone to look upon the climacteric phenomenon or condition as a vast congerie of symptoms with little or no consideration of their basic or underlying causes. These "flashers", these hemorrhages, etc., we correctly attribute to disorders of the circulation. The cardiac palpitations, the various hystero-neuroses and psychical disturbances we rightly associate with disorders of the nervous system, and on this symptomatic standpoint base our therapeutics.

Surely this is a most superficial view of the situation, impractical and unscientific, to say the least. Should we not go a little further back into the etiological

fundamentals and ask *why* the circulatory or nervous variations stand as the immediate causative factors of such a multiplicity of symptoms as characterize the menopause?

We note the abnormal cell proliferative activity, with greatly increased tendency to pathological growths, tumors, etc. Have we earnestly and diligently investigated the reason for such? Have we inquired as far as possible as to *why* our patient has, during the progress of this period suddenly developed an unusual mental and moral condition? No doubt, like many other perplexing problems in medicine and surgery, interrogations similar to these have often crossed the mental sky, but who has clearly discerned the answer? To the essayist, it appears that a correct conception of the nature of menstruation and its associate relation to ovulation, with a proper knowledge of the physiology of the ovary, will illuminate this hitherto more or less obscure, but interesting field.

As is well known, the older physiologists believed that menstruation and ovulation occurred synchronously. Later, it was learned that while generally they were processes closely associated, they frequently appeared at times entirely distinct and separate and that, in fact, menstruation was more or less a secondary phenomena. Following this, came a deeper study into the nature and function of the ovary—the result of which has thrown much light and definite information on ovulation, menstruation, puberty and the menopause, all being directly related and influenced by the presence or absence of the ovary and its functional resultants. It has been shown that long before the appearance of the menstrual flux—one of the objective indications of puberty—the ovary is functioning and ovulation is normally occurring.

Within the past few years, evidence of a most convincing kind has accumulated

*Read before the Clinton Co. Medical Society at St. Johns, Mich., October 6, 1902.

to attest the fact that the ovary has another function of equal significance in many ways with that of ovulation—a function with not only an essential bearing on reproduction, but a marked influence on the metabolic processes of the entire body, the suspension of the action of which accounts for the many hitherto mysterious and pronounced changes and phenomena of the menopause. That its function in this respect is closely related to that of the thyroid gland, the thymus gland and others of the kind, comes with most convincing evidence as a result of careful observations of distinguished writers of this and other countries. Over 100 years ago, King, of London, showed that the colloid substance of the thyroid passed directly into the lymphatic system. Fifty years later, Schiff not only corroborated this, but proved the secretion of a substance which greatly influenced cellular metabolism. You are all fully cognizant of the present information we possess in this direction and its inestimable value to us. Now to be brief and to the point, there exists equally convincing proof that the ovary in a similar way secretes a substance which reaches the circulation and exercises a potent influence on the life of a woman; that the normal physiologic action and growth of the generative system is due to its presence that when the life-limit of the secreting power of the ovary has been reached, and a diminished amount is thrown into the lymphatic system, the metabolic changes peculiar to the climacteric immediately appear. The enumeration of the multiplicity of distressing symptoms that may present themselves at the menopause is not necessary here. You are familiar with them. The theory of this especial function of the ovary and its influence on tissue change is, as has been heretofore stated, based on the mode of reasoning accepted in regard to the function of the thyroid, etc. It does appear as reason-

able as many others of the commonly understood principles of physiology, and with as convincing proof. True, no one has ever seen the ovary in process of secreting this substance; no one has isolated it on its way to build up the generative system and to preserve cell-integrity of the structures. Neither has any one observed its gradual withdrawal from the system, and actually noted the inevitable cellular changes and phenomena of the menopause as a consequence.

Muret, several years ago, presented some fundamental and well-known facts bearing on the question; since then, other evidence more convincing and highly corroborative has accrued. Among the principles to which reference has been made may be mentioned:—

1. In congenital ovarian absence, there is no uterine development or menstruation, and it might be said, an entire absence of that which makes the woman's nature distinct.
2. Ablation of ovaries in the young causes them to grow up without any feminine attributes.
3. Complete ovariectomy after puberty is followed by cessation of menses, atrophy of the genital organs, and a precipitation of the menopause.

The non-realization of this function of the ovary and the deplorable results of depriving certain cells of its influence, created an inviting field for the ambitious, but unthinking gynecological surgeon of the closing years of the 19th Century—"A change has come, however, over the spirit of his dreams", and we see the pendulum of conservatism propelled by knowledge now rapidly assuming its proper position.

The writer was privileged, while at the Post-Graduate Medical School of Chicago, a few months ago, to be present at an interesting surgical procedure, strongly illustrative of present ideas relative to the influence of the ovary on the meno-

pause. In this case, the woman was probably 25. She had had double ovariotomy performed two years before, with the most distressing line of symptoms characteristic of the climacteric following. Circumstances had arisen whereby it was highly desirable that she should bear a child. What was the surgical operation? Another woman, whose abdomen was to be opened, was brought into the ampitheater. Two portions of ovarian structure were removed. Immediately following this, the patient in question, by abdominal section, and by a method of transplantation, had these sutured to the site formerly occupied by her own ovaries. The same surgeon had performed this operation in another case; menstruation occurred in three months, and every symptom of the menopause disappeared.

Another fact that has been demonstrated is that the ovary will exert its peculiar influence on the menopause just as effectually, whether in the process of transplantation it be attached at its normal location or any other remote place within the abdomen or pelvic cavities. One other result of experiment--the tiniest piece of ovarian tissue apparently will do the work of a complete organ.

All these observations give a basis for deduction, and indicate certain lines of treatment and management of the climacteric state. Inferring the correctness of the ascribed function of the ovary, the conclusion is accepted that menopausal phenomena are due to a rapid but *natural physiologic withdrawal* of this specific *secretion*, thus destroying cell-equilibrium with all the resultant symptoms of the climacteric that verily maketh life a burden to both patient and doctor.

That this physiologic suspension of ovarian activity might not come as a shock to the system and to more gradually accustom the cells to the loss of such influence and control, we find ad-

vocates of this theory introducing into the circulation, doses of ovarian extract, with the most gratifying results. This is done, not only to confirm this idea of the function of the ovary, but as a scientific, positive agent in the treatment of the so-called disorders of the menopause. Permit me to cite a few authentic records in this connection:

In *La Polyclinique*, December, '98, C. Jacobs in 51 cases says of the effect of ovarian extract that without any other medication, in every case, troublesome symptoms of the natural menopause either were *entirely* removed or greatly diminished. He further states that its effect on the nervous system was manifest from the first day of administration. In the same year, '98, Mond, in a German publication, records its use with great relief of symptoms in patients where the internal genitalia had been removed. Muret speaks of absolute cure or great improvement in nine cases of nervous disorders due to menopause, all exhibiting symptoms of vaso-motor irregularities, insomnia, lumbar pain, flatulency, etc.

Touvenaint says after using the extract: "It is very useful in *all* cases of *artificial menopause* due to removal of genital apparatus." To show that it is valuable remedy in the distressing mental conditions that arise at the menopause, and following complete extirpation of the ovaries, permit me to refer to the *American Gynecological and Obstetrical Journal* of December 10, 1898. In an article written by Stehman,—one written by Jayle in the July and August, '98, numbers of the *Revue de Gynecologie*, and one by Dr. Jack in the October, 1900, number of the *International Journal of Surgery*, furnished substantial evidence to convince the most skeptical. Reference has already been made in this essay to the effect on the menopause produced by the transplantation of an ovary or a portion of one, all confirmatory of the

idea that the ovary has within it a substance that presides over the generative function of the woman. This is one of the points that the writer wishes to make, and for which it does appear that sufficient evidence has been given. There is, however, another fact of even greater importance than all this; one that every physician should thoroughly realize—the grave responsibility that rests upon us as advisers to the woman. We may differ as to questions of theory, but there are some significant features upon which we all do agree in connection with the menopause. Among these are: 1st. The fact that no woman can escape the experience of the climacteric; 2nd. That at that time, most strenuous demands are made upon every department of her nature; 3rd. That with many, it comes in the nature of a shock, thus disturbing the physiological equilibrium to a dangerous degree; 4th—and most important of all—that all this evidently institutes a change in the polarity of cells, with a consequent tendency to pathological conditions such as abnormal growths, tumors, cancers, etc.

"Forewarned is forearmed", and realizing that all this with variations, is inevitably experienced, it appears to be the imperative duty of every physician to institute such methods as will afford the needed fortification and strength to the woman in passing this crucial period of her life. How may this best be carried out? Every woman who in any way falls under our care at a time, though antedating several years the prospective ordeal, should be treated in anticipation of that event. Its significance and inevitability should be briefly, but forcibly presented to her mind. She should be made to clearly understand the absolute advisability and necessity of a perfectly healthful body as a means of withstanding the extreme demands of nature at this particular time, and that *every organ weakened* either by trauma or congenitally, is

an *open door* to the ingress of factors that lessen her capacity to withstand the tendency to weakness and disease. She must have good blood, a substantial, controllable nervous system, unimpaired digestion, hygienic habits, etc. Every possible *pathological* condition of tissue should be surgically corrected and at the earliest possible opportunity. Kindly observe the term used—*Pathological* condition. Not *every* relaxed vaginal outlet is pathological, neither is *every* lacerated cervix; no, not even *every* fibroid demands imperatively an immediate removal. Here is where the diagnostic skill of the doctor must be exercised to a definite conclusion. *Generally speaking*, all lesions are a *menace*; they may suddenly develop a dangerous nature and while the woman is yet healthful and strong, should be removed by surgery or appropriate treatment. Do not for a moment infer, because the cervix, vagina or perineum only have been mentioned here, that the generative apparatus is the only one that may be effected. Oh, no! Of course, it is the part most *usually* effected in consequence of the greater prevalence of traumatic causes due to child-birth, etc. The whole physical being of the patient is subject to change at the menopause, and must therefore come under the watchful care of the physician. Periodical examinations should be instituted and no guess-work substituted where actual knowledge can be obtained. From the rectum to the ocular apparatus, nothing must be overlooked or neglected. Like the skillful pilot who guides his craft over the rocks of a dangerous sea, so must the conscientious, scientific doctor safely direct the woman over the stormy and perilous ocean—The Menopause.

Madison Apartments,
64 Madison Avenue.

Some Time Ago.—The first "doctor of medicine" was Gulielmo Gordenio, who received his degree from the College of Aosti, in Italy, 1220.—(*Philadelphia Medical Journal*.)

**SOME REASONS WHY PSYCHOLOGY
SHOULD OCCUPY A PLACE IN THE CUR-
RICULUM OF MEDICAL SCHOOLS.***

BY HIRAM A. WRIGHT, M. D.,
Detroit, Mich.

If the medical profession were in possession of accurate scientific knowledge concerning the nature and etiology of mental disease, there would then be no excuse for me or anyone else to read a paper before you with such a title as that chosen in this instance. That medical men in general are not possessed of such knowledge is an undisputed fact. It is likewise equally true of those who claim to have made a special study of psychiatry, and are regarded by others as experts or authorities on the subject. As proof of this statement I ask you but to carefully and thoroughly read the many articles published in our various general and special journals from time to time, submitted by writers considered competent to deal with mental disease in its manifold manifestations, and to make critical comparisons between the statements made by the various writers. If this is insufficient to convince you, I would refer you to the many text-books on the subject in which so many contradictory opinions appear concerning the nature of insanity, as evidenced by the effort, resulting in failure, made to formulate a satisfactory definition of mental disease. The question may arise, is such knowledge essential to the success of medical men, in the pursuit of their professional work? We answer yes, unless the care and treatment of physical ailment is all that is demanded of medical men. But since we have assumed charge of the field of psychiatry, and presume to care for patients, who suffer from what we choose to designate as some type of mental disease, I maintain that such knowledge is absolutely essential, in order that we may perform our full duty to our patients, and

to society. 'Tis true that such patients are seldom treated at home by the family physician, aided by the consulting advice of the specialist. They are usually committed to the care of the staff of some institution supported by the State, and maintained for this special purpose. For this reason, if for no other, society is deeply concerned with the question of how we, as medical men, deal with such patients in our efforts to effect a cure, if a cure be possible. If medical men generally were better informed than they now are concerning the nature of mental disease, do you presume to believe that such a large proportion of insane people would be sent to asylums for treatment as now obtains? I venture to say that there would not. It should not therefore be deemed sufficient in the premises for physicians to be qualified merely to correctly determine the question whether a person is sane or insane. Then, should he presume to treat such a case when the diagnosis of insanity or mental disease is warranted by the conduct of the patient, he must, to be successful in the application of the means to the end in view, have accurate scientific knowledge of the nature of the malady he is dealing with. Just as in the case of diseased states of the physical body, we first endeavor by noting the symptoms manifest, objective and subjective, to arrive at a correct diagnosis of the case, and then based upon our knowledge of the pathology of the disease under observation, we direct our treatment along intelligent, scientific lines. Knowledge of pathology is essential to enable the physician to adopt correct methods of treatment. Diagnosis is not all-sufficient.

How, then, may such knowledge be acquired? By pursuing rational methods of study, and by this we mean that the student should advance from the known to the unknown, just as is done by the earnest seeker for knowledge in any

*Read before the Wayne County Medical Society,
Detroit, Mich., November 13, 1902.

branch of scientific research. Let us apply this thought to the study of mental disease, or insanity, and we shall find that the first thing to be known in this connection is, what the mind itself is. It is improper to assume that medical students have acquired this knowledge prior to having matriculated. The fact is they have not, making it more obligatory on our part to teach this during their college course. 'Tis true we teach more or less thoroughly the anatomy and physiology of the brain, but this is not the mind. *Brain and mind are not one and the same.* For this reason the usual method pursued in the teaching of psychiatry is absolutely of no value to the student, so far as acquainting him with the etiology and nature of mental disease is concerned, for the self-evident reason that an irrational method is being, and has been pursued. And to make my statement still more sweeping there has not yet been published in English-speaking countries, a single text-book purporting to be a treatise on mental disease, which is not defective in the same particulars. They all deal with the question of diagnosis and classification, more or less elaborately, but in no instance do they attempt to convey an adequate conception of what they understand the mind to be, as a preliminary to the study of mental disease.

As well might we attempt to teach the pathology of endocarditis to students who know nothing of the anatomy of the heart, or attempt to teach the treatment of appendicitis to those who do not know what and where the appendix is. Since we deem it right and proper in the conduct of our medical schools to give instruction in mental disease to students, does not a common-sense method prompt the idea that we should first give instruction as to what the mind is, and as to the office it fulfills in the economy of man?

To illustrate my contention still further, let me employ for the purpose of illustra-

tion, the quite rational course pursued by teachers in their endeavor to impart instruction concerning the nature of diseased conditions of the various organs of the physical body. They first give instruction in anatomy, that the student may know the size, structure, and relations of the several organs of the body. They teach physiology that the student may be familiar with the uses or functions of these several organs in health. After perfecting himself in these branches, the student is advanced to take up the study of pathology, practice of medicine, and surgery. Pray tell me, what progress do you think the student would make if the above order of study were reversed? Who could hope to make satisfactory progress in teaching surgery to students who had not first studied anatomy? Or who might hope to give instruction in the principles of practice of medicine with any degree of satisfaction, to students who had not first studied physiology? Or who can expect to acquire definite scientific knowledge of septic processes who has not first learned more or less of bacteriology? No one. Yet in our present methods, pursued by students and outlined by teachers, in the study of mental disease, the diseased states of mind are undertaken first, and the very important preliminary thereto, the nature of the normal mind, is not, or very seldom, touched upon at all; and after graduation when sworn as an expert to testify as to the mental state of an individual accused of crime, yet who disclaims responsibility on the grounds of insanity, lawyers wonder, and doctors wonder, and the public wonders why experts differ so widely.

Do you wonder that they wonder, when such a state of affairs continues in our medical schools? The student is not to blame for this, the teacher of mental disease is not alone to blame,—though he is the greater sinner, if sin there be,—but the whole teaching faculty is to blame,

in my opinion, since they consider this exceedingly difficult subject, psychiatry, a very impractical subject for the student to devote his attention to, and believe about one hour a week, during the final courses, to be amply sufficient to allow in their schedule of lectures for this purely theoretical subject as they too often choose to term it.

I take the liberty right here of expressing the opinion that we as a profession, under the guiding influence of our medical schools, are drifting, slowly, yet drifting from being regarded as a learned profession of educated men and women, to become a mere money-making lot of tradesmen. There are some notable individual exceptions, enough merely to prove the rule. Ample attention is now given to those subjects which are applicable as bread and butter winners, to the serious neglect of this increasingly important subject, psychiatry, with the result that we are quite uninformed of matters we presume to deal with, and are expected to be familiar with.

Have I not painted the picture truly, thus far? And how may conditions be improved, if defect exists? By introducing into the course of study, and making provision for it in the regular schedule of lectures, regular hours for instruction concerning the nature and office of the normal mind in the human economy, precisely as is now being done with the study of the body and the several diseased conditions to which it is heir. That is what psychology as a science treats of. Two objections may be offered. The first is the element of *Time*. The schedule is already full to overflowing, it is claimed. I urge, take time! It is not imperative that the student should graduate in four years, but it is essential to his successful career as a practitioner of medicine that, during his college course, he shall have a good and broad foundation laid, upon which to profitably continue his post-graduate

studies. The second objection possibly offered, is that the subject itself, psychology, is too difficult for the average student to comprehend. To this I offer the comment, that if the study of the normal mind is too difficult for the student to comprehend, what then must be the study of the diseased mind to the same student? Proportionately more incomprehensible. Should we avoid the study of a subject because difficult, yet deem it essential to the proper education of the physician?

Education does not consist merely in the acquisition of knowledge. It implies also the cultivation of the mental faculties. We study history not alone to inform ourselves of what has transpired in the past, but to cultivate memory as well. We study mathematics not merely to inform ourselves of the science of numeration, etc., but also to cultivate reason. We study literature not only to familiarize ourselves with language, but to cultivate ideation as well. Pertinent to this thought, no less an authority than the late Sir William Hamilton, Professor of metaphysics in Edinburg University, said, that it was his opinion that the study of the mind is the best subject to undertake, in order to cultivate the several faculties of the mind of the student. That science which treats of the mind is termed Psychology.

It is not a physical science, but rather is to be considered as that branch of metaphysics which treats of ethics and intellect. We as physicians are not specially concerned with the study of ethics, a division of psychology which treats of morals and criminology, but we are deeply concerned with the study of intellectual processes incident to consciousness, and derangement thereof, constituting insanity. I am well aware that our physiologists attempt to account for consciousness on a physiological basis alone, and assume that the intellectual faculties bear

some sort of a functional dependence upon certain cerebral cortical cells or areas, for their existence, and sometimes assert that these particular areas or centres are possible of localization or demonstration. Unfortunately for themselves, our neurologists and alienists have assumed this hypothesis to be true, and upon it they formulate a theory concerning the nature of mind, in accordance with this unproven assumption. They affirm that a healthy mind implies a healthy brain, and that mental disease in any of its types is dependent upon impaired cortical integrity. In other words it is current belief in medical circles that the mind is dependent for its existence upon the activity of the cortical cells. I, for one, do not accept this hypothesis as true, for the reason that there are many psychical phenomena entirely inexplicable by such a hypothesis. It must be remembered that the strongest proof of the correctness of any hypothesis is its exclusive competence to explain phenomena.

I believe that the whole difficulty lies in the fact that we have assumed that cortical cells in some way preside over intellectual faculties, and have not taken the trouble to prove or disprove the assumption. 'Tis true that were we to be guided herein by the evidence of our senses, this would seem to be the truth. But, things are not always what they seem to be. The sun seems to rise in the east, and set in the west, and seems to move around the earth. But it does not. Nor can it be demonstrated to us through the media of our senses that it does not. We are however accustomed to explain this phenomenon on the hypothesis that the earth is a sphere, revolving on its own axis. This hypothesis satisfactorily explains the phenomenon, hence we say it is true. If the assumption or hypothesis that such intellectual areas exist in the cerebral cortex were true, then we should be able to account for the phenomenon of

consciousness on a physiologic basis, and the study of mind would be a part of physiology, and we would have no such science at all as psychology. This is the only conclusion to be drawn from the premises offered.

It is of vast importance in this connection to consider briefly just what psychic phenomena may properly be included in the generic term, mind, and what may not be. The mind is not an entity, but suggests rather the idea of conscious activity only. The idea of elasticity or change is also implied, since we speak of it as being cultivated or developed by educational effort. It is not uniformly subject to similar degrees of cultivation in the individual, nor is the mind of one person developed by the same influence equally rapidly with that of another person. We conceive of it being at rest, or in activity. The mind of one person is cultivated to a much greater degree than that of another. What do we cultivate in an individual by education? Perception, comprehension, ideation, memory, reason, volition, judgment, etc., etc. Then is not this series of intellectual processes taken in the aggregate, a reasonable conception of what the mind is? It may therefore be defined as a generic term signifying the aggregate of those intellectual processes incident to consciousness which occur in time only, not in space. These several psychical phenomena, enumerated above, may properly be included in the term mind, and only these. Now what may not be so included? We must not include our five physical senses, sight, hearing, taste, smell and touch—processes incident to consciousness truly, as component parts of the mind, for the reason that they occur in space, as well as time, yet are not subject to cultivation by educational methods or effort, as are the aforesaid faculties. These are physical senses, physiological processes not psychological. The new-born child, if its

visual tracts be healthy, sees just as well and just as much as could Prof. Agassiz, the trained naturalist. But the child does not perceive nor comprehend what he sees, as does one whose intellectual faculties are cultivated. We do not cultivate the senses, they are functionally dependent upon nerve-structure, and are performed equally well by those whose mental faculties are uncultivated, as by those whose faculties are cultivated.

Nor must we confuse instinct with intellect, and include that as a component of the mind, since instinct is inherent in the individual from birth, it is distinctly transmitted by heredity from parent to offspring, while mental faculties are not manifest until later in life, and are the result of environmental training, not heredity. Hence instinct is not a component part in the generic whole, mind.

Nor may we include the emotional states, such as grief, anger, fear, courage, etc., as components of mind. These are states of being, responsive to impressions received in consciousness, not processes employed in the intellectual upbuilding of the individual.

Nor may we include as components of mind, such qualities of character as love, hatred, knowledge, wisdom, justice, mercy, goodness, etc., etc. These are principles, not intellectual processes capable of being utilized in the acquisition of intelligence. They are attributes of the soul, not faculties of the mind. Knowledge is synonymous with intelligence. Mind is synonymous with intellect. We utilize the intellect, i. e., faculties of the mind, to acquire intelligence. Knowledge is an attribute of soul, hence the seat of consciousness is *of* the soul, not *in* the soul—instead of in the brain cells.

The above idea of mind is not that which is currently accepted and taught even by many psychologists, let alone our neurologists and alienists. So far as I have been able to comprehend their

teachings, they practically include all the above enumerated psychical phenomena in mind, which I have taken pains to exclude. And yet, including all such as components of mind, they fall into the same error as our alienists, by accepting as true without question, the assumption that mind is dependent upon cortical cells for its genesis. And if you agree with this, which I regard is an untenable hypothesis, you cannot consistently differ from the statement made by Prof. Stanley Hall, of Clark University, in a published pamphlet on "Anger", wherein he says: "We are sorry because we cry, we are angry because we strike, we are afraid because we tremble." This is materialism run riot, yet every physician who insists upon the genesis of mind, as being dependent upon the cortical cells, is obliged, if he be logical and consistent with his hypothesis, to agree absolutely with this quotation from Prof. Hall. It is such statements as the above which makes psychology, as it is usually taught, difficult of comprehension by the student.

But we hear neurologists and others repeatedly assert that memory is due to the fact that impressions received through the medium of the sensory nerve apparatus, are stored up in the cells of the cortex. They do not know this, they only believe it. Yet they dogmatically repeat it, just as though it were a well-established truth. If this be true, how may they account for the fact that impressions received and stored up in such cells of a youth, are readily recalled by him when he attains the age of 70 years or more, when we know that these cortical cells in the brain, have been by the constructive and destructive changes of metabolism changed time and time again in the lapsed interval of years? And again, if such impressions were stored in the cortical cells, these cells must therefore be considered as the seat of consciousness. And yet we know that conscious-

ness is not dependent upon neural activity alone, as witness the fact of the pupillary reflex, made possible by the anatomical integrity of afferent or sensory nerve, a cortical centre, and an efferent nerve. This contraction of the pupil is not a conscious sequence upon the admission of light upon the retina. If the neural activity of one complete nervous reflex arc, which includes within it a cortical centre, the angular gyrus is unattended by the awakening of the phenomenon known as consciousness; how many such arcs of neural activity are necessary, think you, to awaken it? Let me quote briefly on this point from James Sully, Professor of the philosophy of mind and logic in University College, London, because he states the case so clearly. He says:

"In the process of peripheral stimulation and propagation of its effect to the centre, and in the transmission of a motor impulse from the brain to the muscles, we have a physiological process without any conscious concomitant. How are we to conceive of this partial parallelism? Does it point to any true causal relation between the psychical and the neural factor, or does it rather suggest a parallelism of two disconnected processes, as of two rivers flowing side by side?

"These questions have not been satisfactorily answered by scientific methods. According to a common view, more especially among physiologists, we have to think of the chain of nervous events as complete and self-sufficient throughout. It follows from this supposition, that there can be no causal action of consciousness upon the series of neural events, just because in accordance with the principles of modern physical science, more particularly of the law of the conservation of energy, every phase of a series of movements is fully accounted for by a knowledge of the preceding phases. This view looks upon the appearance of consciousness at a certain

point in the physical succession as something collateral and apparently accidental. The doctrine is known as that of Human Automatism, the doctrine that we are essentially nervous machines with a useless appendage of consciousness somehow added. The doctrine obviously fails to explain why consciousness should appear on the scene at all.

"Opposed to this view, we have another which regards the psychical processes as at least as real as the physiological, having a reality which cannot, without setting at naught fundamental distinctions, be subsumed under, or even made subordinate to physical action. This view is naturally the one to which students of psychology have, on the whole, inclined. It concedes that mental events are conditioned by nervous processes in the sense explained above, but it declines to regard the one as in any sense the outcome of the other. Some psychologists go further, and agree that a scientific examination of the facts goes to support the idea that consciousness in its turn stands in a causal relation to nervous action, since its intervention must be supposed to modify the form of the reaction. This efficiency of consciousness is especially maintained in the case of volitional acts."

Consciousness, as we know, is only possible of awakening by the supervention of mental to neural activity. We must not only see an object, but perceive as well, in order that we may be conscious of its presence. Wherein can the faculty of perception differ from the sense of sight, if, as is claimed, it is true that both are dependent upon neural activity? The psychologist distinguishes between seeing and perceiving by regarding sight as a physical process, and perception as a metaphysical process. He considers psychology to be a branch of metaphysics, not a physical science like physiology. He regards the physical and the meta-

physical as being the two sides or realms of a dual universe. Physical and metaphysical are synonyms of material and spiritual. Each of these realms is self-existent. Man is a dual being, at least a type of the universe. Body and soul are the terms we use to designate the physical and metaphysical as relating to man. Each of these is self-existent; each independent of the other. The mind is a series of receptive and emissive processes incident to consciousness intervening between, and serves us as a means by which we have voluntary control over our bodies, that we may utilize our body as a mechanism for manifestation and with which we may accumulate experiences. *Mind and soul are made manifest by the body, but are not dependent thereon for their existence.* Just as, for comparison, the musician makes manifest his knowledge of music by using a piano, but without his knowledge being dependent upon the construction of the piano, or as the falling stone making manifest the force of attraction, but attraction not being genetically dependent upon the stone, so may we comprehend the idea, that a normal brain is necessary for perfect manifestation of intellect and character, but such qualities are not therefore dependent upon the brain-cells for their existence. We must distinguish between manifestation on the brain-cells for their existence. We and genesis, since a difference exists.

Because the commonly accepted hypothesis concerning the relation of mind and brain in the human economy, which regards the one as dependent upon, or induced by the activity of the other, is manifestly incompetent to explain many psychic phenomena, I have discarded it. And because the other hypothesis, unpopular as yet in medical circles because neglected, regarding body and soul as equally self-existent, typical of the duality of universal existence, with the mind as a series of intervening intellectual processes incident to consciousness, is ex-

clusively competent to explain such phenomena, I have accepted it. Furthermore it very satisfactorily accounts for the fact that quite frequently we find gross and minute pathological changes on post-mortem examination of the brains of persons who during life were perfectly sane, and also the fact that no such change can be found in the brains of many persons who during life, were up to the time of death, insane.

If insanity is what is claimed for it, dependent upon cortical disease, how can you account for this very evident contradiction? This explanation has been offered: "There is no insanity without disease of the cortex of the brain. It is only an acknowledgement of our ignorance to speak of functional diseases or inorganic psychoses. The pathological change is there in the cortex, but we do not know how or where to find it." This is just like saying we know there is anthracite coal in Greenland, but we don't know how or where to find it. How do they know the lesion is there, if it cannot be found? They only *think* it is there, they do not *know* it. They think there ought to be some lesion in the cortex, because they believe that mind is functionally dependent upon brain cortex for its genesis. Why not then do away with the term insanity altogether, and regard all such conditions as paranoia, melancholia, mania, and stupor as a form of brain disease, not mental?

If in our study of psychiatry we had approached the subject in a rational manner similar to that which I have endeavored to outline above—study the normal mind, not the brain only, the disease afterward—we should not now entertain the erroneous idea that mental disease is dependent upon impaired cortical integrity.

It has been said of me that had I ever had any clinical experience in an asylum I would not make any such statement as the above implies. Let me ask how many

cases of insanity must one see clinically to determine the question of the relation between mind and brain? Can such a question be determined by clinical study? No, I answer, not if one should see a million cases. How many cases of typhoid fever should be studied clinically to determine the fact that it is caused by the Bacillus Typhosis? We, as a profession, have been studying small-pox clinically for centuries and do not yet know its etiology. Such questions cannot be determined by clinical study alone. We require the aid of the microscope and laboratory methods to determine such points. Since this is true of the study of disease in the physical body, that clinical study alone is insufficient, to determine all disputed questions of etiology and the nature of disease, is it not equally true of that much more difficult subject, mental disease? We have brain disease without insanity, and insanity without brain disease. They are entirely independent, one of the other. Delirium is not insanity.

Our microscopists are quite as competent to determine the presence or absence of organic disease in the brain cortex, as they are to determine the same thing of the kidney. We accept their findings as final in the case of the kidney, but because they find no anatomical changes in the brain of a person who, during life, suffered from mental disease, we practically accuse them of incompetency. The error is our own, in that we expect to find such lesion, because we yet entertain the false hypothesis as true, that insanity is due to cortical disease.

The sooner we come to look upon man as being something more than a physical body, and begin to study psychology in addition to anatomy and physiology, the sooner shall we solve many problems as to mental disease, now incomprehensible to us. We cannot account for consciousness on a physiological basis alone, we must seek further for an explanation of

the phenomenon. I commend to your thoughtful consideration a careful study of psychology. It is not a speculative science, as many who are incompetent to pass judgment upon it claim it to be. To deny the self-existence of the metaphysical, because it is undemonstrable to our senses is to display no small degree of blissful ignorance.

I therefore plead the student's cause when I affirm that he should be permitted during the early years of his college course, to study the normal mind, preparatory to his study of psychiatry in the final years of his medical course. The fact that it is not being done, is no argument against its propriety. We live in an age of progress. A short time ago, bacteriology was not being taught, and we who did not enjoy the privilege of such instruction are the losers. Just what the study of bacteriology is to a knowledge of septic processes, or anatomy to surgery, physiology to practice, psychology is to psychiatry. The study of psychology is proper for medical students: 1. Because present methods of teaching psychiatry are inadequate to meet the demands made upon the physician. 2. By the study of psychology alone may we understand what the mind is. 3. The study of psychology is conducive to mental culture. 4. It is essential to the student in order that he may comprehend psychiatry.

497 Trumbull Avenue.

Not Too Old To Practice.—The oldest practicing physician in the United States is said to be Dr. O. R. Skinner, of Freehold, N. J., who is in his 93rd year. He was a surgeon in the late civil war. He is kept busy with his professional duties and answers promptly all calls.

Nitro-Glycerine for Post Partum Hemorrhage.—"Nitro-Glycerine has a wonderful effect in post partum hemorrhage," says the *Medical Summary*.

SOME ADVANCEMENTS IN RADIO-THERAPY.*

BY H. R. VARNEY, M. D.,
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Probably no discovery since that of Serum-therapy has attracted so much attention as the discovery of the effect of the X-ray upon some diseases heretofore considered incurable.

The first announcements of the great benefits derived from this unknown, mysterious agent were received with discredit by the doubting, skeptical minds of the profession at large; this was not to be wondered at, so marvelous are its results with diseases, formerly classed among incurable ones.

For instance, cancer has caused the death of seventy-five per cent. of its victims. Lupus also, has been unresponsive to medical skill. Therefore, when we read in some of our best journals, that these two diseases were influenced by the X-light, with reports of cases cured, it is not strange that to all of us the news seemed too good to be true; for we had looked on the X-ray as merely an assistant in diagnosis.

We know from experiments with plant life that the electric arc light has nearly the same vital stimulating influence as the sun's rays. Siemens found that plants exposed to the sun's rays six hours, and six hours to electric light, far surpassed those in darkness, or under ordinary conditions. Plants were more vigorous and the flavor of fruit from plants thus treated was unsurpassed. The chemical or actinic ray of the sun, causing erythema or sunburn, produces the same action as the arc light, except that it results more quickly with the electric light, but no sensation of a burn, as with the sun's rays, until days after the effect is produced, because

of the absence of the red, or heat ray; showing the same stimulating influence upon the skin.

As a therapeutic agent, we have had our attention forcibly attracted to the X-ray, for about two years. The first year was productive of but few results because of the great fear of the damaging properties the Ray possesses. Few men cared to risk their reputations, perhaps, to say nothing of the expense of equipping themselves with what might prove only an experiment. For there was no literature to assist them, and almost daily came reports of very destructive burns occurring during exposures for radiographs. However, during the past year, operators have placed this form of treatment beyond the experimental stage, and it now occupies a field in therapeutics, covered by no other known agent. Today, the best men in the profession, no longer sit back and smile at the enthusiast, but if they have not a means of this method of treatment, they have cases that are being so treated, under constant observation.

The lay public are rapidly collecting the erroneous idea that the Rays are a deliverance from the knife. This, you can readily see the harm in; for in deep-seated carcinomata, where there is a large tumor, the Rays can do but little toward a cure; but in some superficial growths, the results are like magic. However, every week, the conscientious operator of the Ray must advise patients to return to the surgeon for entire extirpation of the growth, if operable, to be followed by the Rays when the wound heals, thus securing perfect healing and destroying any pathological foci beyond the reach of the surgeon's knife.

Therefore, while the results obtained with the Rays have justified the time and expense of the treatments, and could be obtained by no other treatment known, to date, yet I do not by any means regard

*Written for the Detroit Medical Journal.

it as the only method to use, to the exclusion of excision or other long-tried and successful ones. We are still in total darkness as to the true nature of the X-ray, the prefix X, signifying "unknown". The work done with it to date, has been almost entirely experimental. We have been feeling our way along, as it were, making careful clinical observations, with now and then a bad dream of a sloughing burn. Though the oftener I use the Ray, the greater respect I have for its damaging and destructive properties.

There can be no definite, universal rule in applying the rays, in different classes of disease; or in patients with the same disease, for no two cases react the same, with practically the same ray. Every case is at the mercy of the operator, who should always begin exposures of short duration, should examine the parts exposed, before and after every treatment, note the first stimulating symptom, erythema. Blondes react more quickly than brunettes, old people more quickly than the middle-aged, or young, and are much more liable to burn. Because of less cell-resistance, tissues near the bone react more rapidly than tissue having fat underlying them.

Its action upon all cell tissue, histological or pathological, is a powerful stimulant. The epithelial layer of the skin shows marked stimulation, and to this rapid cell proliferation is due the filling up of what, with any other treatment, would be an ugly scar, in ulcerated lesions, and when healed but little, if any, pit or scar is seen.

Upon the true skin, the same cell stimulation takes place in all different cell-structures. The nerve-cell is the first to show stimulation, and soon, overstimulation, producing an analgesic effect. Relief from pain is a most constant expression after but fewer radiations.

Dr. Morton, of New York, reports a case of tic douloureux entirely relieved

by irradiation of the Gasserian ganglion, that had been twice operated upon, to remove the nerve. Irradiation of Locomotor Ataxia cases has given relief from pain and cessation of vomiting, etc. Also, with promising symptoms in Paresis, more stimulation was produced than by electric treatment.

The blood supply is increased; phagocytosis more active. Nearly the same, if not identical, are the changes that take place in the circulation I have observed, in the frog and tadpole with this irradiated inflammation as occur in a normal inflammation. All glandular functions are stimulated, so that the most obstinate acne indurata is entirely relieved. Superficial ulcerating lesions, such as lupus, epithelioma and chronic varicose ulcers heal rapidly, and inoperable lymphatic glandular enlargements have been entirely reduced.

Stimulation of the hair-bulb also takes place with rapid growth, then over-stimulation, atrophy of bulb, and finally falling out of the hair. Such stimulation will carry away old scar tissue.

Not all the good effect upon the deforming skin lesions, and growth is due to cell-stimulation. Many such affections are due to micro-organisms and on them the rays have a truly hampering effect; either in direct chemical, antiseptic action, which means death, or a stimulation to over-growth, attenuation, and death.

Deeper tissues, both soft and hard, are affected the same as superficial structures. New bone deposits, as osteo-sarcoma and enlarged tubercular joints can be partially carried away, and in some cases, entirely so.

Yet I believe with this great, all-excitement it is possible to stimulate the pathological cell to a more rapid growth than with a cell to a more rapid growth with a mild ray, and I still maintain that in some cases, the ray must be pushed to the burning point, for then we are sure of over-

stimulation of the pathological cell which has less resistance than the normal cell; this means death to the cell with the least resistance, and a stimulation of the normal cell to its utmost; then, and then only, shall we see improvement in malignant growths, and others of a like nature. It is just in this particular that the timid operator will not reap the results looked for.

Just here, let me emphasize the importance of administering enough of the rays to cause chemical retrogression of the pathological condition and not destroy normal tissue, if a result is to be obtained.

The symptoms of stimulation, to the desired degree, or to the retrogression of the pathological cell, are Erythema and Dermatitis.

When this physiological, stimulating effect is produced, the waxy edge of the epithelioma can be seen being rapidly carried away from day to day. The same is true in Keloid deposits, tubercular enlargements, and osteo-sarcomatous tumors. It is extremely important that the operator produce this stimulating effect gradually, and that he continue the effect without over-stimulation, and destruction of new tissue or atrophy of normal tissue. This characteristic, stimulating condition once produced, may spread for a week, and continue two weeks, involving areas far remote from the exposed parts, and if the lesion is local and superficial, treatment may be stopped, and when inflammation subsides, the lesion will be much improved, if not entirely healed. If it be a malignant, deep-seated growth, softening, and diminution in size will be apparent. If an open ulcer is being treated, there will be less discharge, absence of odor, relief from pain, but not a result unless the physiological effect is obtained. In grave, inoperable, malignant conditions, where most active stimulation must be continually kept up, by protec-

tion of your areas of Dermatitis, with tin-foil or sheet lead, different areas of the growth, at different angles, may be exposed. I have cases that have been with me for from three to six months, that have peeled from four to twelve times, yet lose only now and then one of continuous, daily exposures, with but little, if any, injury to or destruction of normal tissue.

This inflammation, produced gradually by the rays, does not cause pain. But if pain existed before exposure, it is the exception to a most constant rule if the pain is not relieved with from one to three exposures. Yet if an extensive rapid reaction is produced, great pain will result as in an extensive, deep-seated inflammation from any other cause.

In the cell-structures, in some malignant growths, with irradiation marked changes take place. In grave, operative cases, where the Rays have been given for weeks, or even months previous to the operation, while the treatment is unknown to pathology, pathologists report upon specimens, which are different from anything they have ever seen. Degeneration of the cancer cell was apparent, and also a change resembling repair, in the edges of the growth.

In no way do I wish to convey the impression that the ray is a cure-all in malignant conditions. While we have, as far as can be determined, a complete removal of the growth, yet some cases will show only a checking of the growth, for a time, and relief of pain; then suddenly, it will grow as rapidly as before, the ray seeming to have lost effect even though an increase in time of exposure be given. At no time have I allowed the rays to offer a substitute where the patient would submit to a complete removal by the surgeon.

I believe in the application of the rays after every operation for the removal of malignant conditions, for it can do no

harm, and it does assist in the stimulation of normal repair.

I believe we are on the eve of a revolution in the treatment of many skin-deforming affections; and the Ray treatment may assist the pathologist into some yet obscure field of research as to the true cause of cancer.

In conclusion, let us note what is accomplished by the Rays:

First: Relieves pain.

Second: Diminishes new growths.

Third: Hampers all germ life.

Fourth: Assists in disappearance of odor and discharge.

Fifth: Excites a normal process of repair in all cell-structures.

Sixth: Little or no scarring.

Seventh: A most valuable therapeutic agent when properly used after operations in malignant conditions.

Eighth: Changes in character of growth pathologically to less malignant.

Dangers and uncertainties:

First: Possibilities of burns and gangrene. Pigmentation and falling of hair.

Second: Indefinite dosage.

Third: No universal technique.

Fourth: Difficulty in ascertaining the danger point in overstimulation.

Fifth: Diseases pathologically similar, do not react the same.

Sixth: Possibility of mild or fatal toxemia.

Seventh: Possibility of stimulating pathological conditions to a more rapid growth, if not enough of Ray is given.

420 Woodward Avenue.

For Gastric Ulcer.—The *Medical Sentinel* recommends the following:

℞ Picrotoxin.

Morph hydrochl, aa gr. i.

Atrop sulphat, gr. 1-5.

Ergotin, m. xx.

Aq. Laurocerosi, 5 iij.

M. Sig. Four to six drops five to ten minutes before each meal.

Right From the Heart.—A layman, a sufferer from an attack of malaria which now is as rife in Massachusetts as Michigan, between rigors gave birth to the following:

OF A BIRD, A BEAST, AND A TREE.
(The story of a Sanguinary Contest.)

Of all that lawless, pirate band
That sails the seas or scouts the land,
To stab, to dynamite, to slay,
To poison, torture, or betray,
Like Filipino or Malay,
The foe I dread most shuns the day—
Anopheles Mosquito!

He is no common orator,
An agitator, striker, or
Some one whose head is turned a bit,—
Although he SPEAKS when you permit,
And AGITATES, and STRIKES with grit,
For blood and LONG hours—think of it!—
Anopheles Mosquito.

He is a leader sharp and wise,
Well-stocked with bountiful supplies.
He brings his troopers without drum
Or any sound save low-pitched hum,
And carries them himself, I yum!—
The warlike, fierce Plasmodium,
Plasmodium Malariae.

He makes a breach with his sharp sword:
His sturdy warriors, in a horde,
Swarm in and quickly work their will;
Each corpuscle of blood they fill.
But when they go abroad, they thrill
A body with a fearsome chill,
Plasmodium Malariae.

You fear they'll be the death of you,
And then you fear they won't, 'tis true.
For when their camp-fires start to burn,
Upon your bed you toss and turn,
All food you loathe, companions spurn,
WAS THIS PLAGUE IN PANDORA'S URN,
Plasmodium Malariae?

It's sad that Culex, slight and thin,
Should be mixed up with his bad kin,
Shame-faced, head-down *Anopheles*,
Who smites by night to burn or freeze,
And kills his foes by slow degrees,
While they give sustenance to these
Plasmodia amoebae!

'Tis well Jove saw Pandora's box,
And knew she'd tampered with the locks.
That good friend of our human race,
With wisdom and with kingly grace
Had planted in the proper place
A weapon that would save the case—
Cinchona, O Cinchona.

We've fought our way up from the gulf
By that loud-ringing blade, "Quin. Sulph."
And now are we to sit here dumb,
And let *Anopheles* "go hum?"
NO! FIGHT HIM WITH PETROLEUM!
Purveyor of Plasmodium,
Anopheles Mosquito.

L'ENVOI.

To me will come AN AWFUL EASE
When thou art gone, *Anopheles!*
My PLASM freed from ODIUM,
When thou art dead, PLASMODIUM!

—(A. W. Hitchcock, Worcester, Mass.
Nov., 1902.)

DETROIT MEDICAL JOURNAL

A CONCISE MONTHLY
EPITOME OF PRACTICE AND THERAPEUTICS.

WALTER C. BOYNTON, Manager.

—ISSUED BY—

THE DETROIT MEDICAL JOURNAL CO.,

NOTE.—The management cannot undertake to return rejected manuscript unless sufficient postage is provided to cover the expense thereof.

Address all communications, of whatever nature, to 270 Woodward Avenue, Detroit, Michigan, U. S. A.

DETROIT, MICH., DECEMBER, 1902.

THE SEASON'S GREETINGS.

For the second time since we began publication, we are privileged to extend the greetings of the season to our readers. It is with even greater pleasure this year that we avail ourselves of the privilege than we did a year ago, for last year we were practically able to lisp them only. Since that time we have improved—our friends tell us so, and with all due modesty we have noted an improvement, ourselves. The Journal is better now than it was a year ago, and we are not ashamed to say so. We are publishing more original matter, the departments have assumed more importance, and in the words of Kipling, we have "found" ourselves.

From both our literary and our business friends we are receiving more hearty support and we are assured of the continuance of support from all sides. These are pleasant assurances, and we shall see to it that all who have been so kind as to make us promises are reminded of them from time to time. More people are reading the Journal every month and more are paying their subscriptions when they are due. Some of our subscribers do not yet realize that it takes money to run a publication, but we are trying to have patience, knowing that some day our backward friends will settle the small bills we have against them.

So, with many thanks to our supporters, subscribers, contributors and ad-

vertisers, we extend an old-fashioned but a very sincere wish that they may enjoy a Merry Christmas and a Happy New Year.

BENEFACTORS IN DISGUISE.

An interesting development in the exact science of advertising, as it is practiced by enterprising American business houses is furnished in the evolution of the testimonial letter. Readers of the advertising space in the daily newspapers for generations have been accustomed to see the faces of well known men and women looking out—somewhat dimly—from the wood-cuts and the old line-drawings surmounting an "unsolicited" testimonial of some patented preparation or drug nostrum. The majority of these preparations have failed of hearty endorsement at the hands of the medical profession, but now we are approaching a change in affairs. The members of the profession have been enlisted in the ranks of the "puffers" of proprietary preparations, and the methods of proprietor and endorser have assumed startling proportions.

Our medical journals for months have been filled with contributions whose thinly-veiled purpose has been to boom some pharmaceutical preparation. This is a perversion of the sometimes valuable clinical report, and like most perversions is disagreeable to witness. Every editor is accustomed to receive contributions, sometimes typewritten, sometimes in long-hand, describing either some general treatment or some specific case treated by the physician who has written it. Somewhere in the body of the article, put in almost by inadvertence, is the name of some more or less well known preparation, the use of which is advocated by the writer of the article handed in. One has to be constantly on guard against publishing these things. The natural supposition of every editor, when he gets one of the first of this class of hack articles is

that the contribution is prepared for his readers alone; the fact is that the same article has been duplicated and sent to almost every journal of medicine throughout the country. One in particular that was received by us ran through more than twenty journals (not this one), and the end is not yet.

The plan is poor. It hurts the manufacturer with the journals that would be glad to assist a worthy preparation through legitimate advertising; it is bad for the journal, the readers of which lose respect for it; and it is trebly bad for the hack writer, who loses caste with the publisher, the reader and the manufacturer. Once a man has lent his name to this sort of thing for the money he receives (and we can scarcely believe that in any case a writer of this class is actuated by purely humanitarian motives) he must be barred from further contributions to any journal in good standing. His professional brothers must have at least a mild contempt for him and the manufacturer knows that an opinion which is for sale is never worth the genuine unsolicited endorsement that is based only on the merit of the preparation which is endorsed and not on the size of the check which the manufacturer writes for syndicated articles.

The plan is self-limited. The time must come when the profession, the members of which make up the readers of medical journals, will hesitate to believe and will finally refuse to place any credence in the statements of men who write of the benefits derived from the use of such and such a preparation. The preparation itself will lose prestige because its manufacturers have been obliged to take a doubtful means of placing its merits before the physician, upon whose support they must depend to a large extent for a sale of their goods. The time must come when the editors can be no longer fooled in this fashion; and when that time comes, the hack writers will have done a

great service to medical writing. They will have made it impossible for anything not strictly in accord with professional etiquette to gain a place in any medical publication with pretensions to a high standard. Their contributions will be relegated to the columns of those journals that frankly acknowledge that the sole excuse for their existence is a desire on the part of the publisher to make the paper pay. In this way such writers as we have described are in reality benefactors in disguise. The counterfeit presentiment is well gotten up, the disguise hard to penetrate, but a little education on the part of the editors and the reading members of the profession will cause the mask to fall and the dark Providence of this abuse of legitimate journalism to become apparent.

THE ANTI-CONSUMPTION LEAGUE OF TORONTO.

In the November issue of the Journal, we called attention to a proposition introduced in the meeting of the medical society of West Virginia by Dr. G. A. Aschman, of that state, to the effect that the physicians of the southern commonwealth band together in an organization to secure legislation looking to the establishment of a sanatorium for consumptives which should be the result of laws enacted by the state legislature. A recent letter from Dr. E. J. Barrick, of Toronto, Ontario, calls our attention to the fact that there is an anti-consumption league in the Canadian city which is working along the same lines. Dr. Barrick is president of the league in question, and is naturally deeply interested in the subject.

Considerable progress has already been made by the Toronto organization. It has succeeded in securing the passage of an enabling act, on the part of the legislative assembly of the province of Ontario, by which any municipality may establish

a sanatorium for the treatment of consumptives. In every case in which a municipality takes action in this direction, the plans are to be submitted to the Provincial Secretary, who is to submit them to the Board of Health for report. Upon receiving this, he may approve the plans, making, however, such changes and modifications as he may think best. In this manner the sanatorium, when established, is to have all the advantages of government endorsement and support. The council of the municipality itself, however, must take the real initiative. The council is permitted to pass by-laws for raising the money which the municipality is to contribute to the cost of the proposed sanatorium. In Toronto, last month, the Board of Control recommended that a by-law to provide for an issue of \$50,000 in debentures should be submitted; the committee of the whole defeated this recommendation, but it was reinstated in the Council by a vote of 10 to 7. This is an important step towards the accomplishment of the wishes of Toronto members of the league.

The Toronto act provides that a board of trustees shall be provided for in the municipal by-law submitted, they to take charge of and manage the sanatorium, in the form of a corporation. The real control, however, is to be vested in the Lieutenant-Governor, since he is given power by the act to make regulations concerning the management of sanatoria which shall supersede any regulations made by the trustees, provided that the latter are at variance with those of the Lieutenant-Governor. This official is also given authority to pay over to the trustees one-fifth of the cost of the sanatorium, its equipment and running expenses, provided that the grant so made (from the consolidated revenues of the province) shall not exceed \$4,000 in all. He may also, out of any money voted by the Legislature for the purpose, pay to the trustees

a sum of money not exceeding \$1.50 per week for the support of patients undergoing treatment at the institution. The properties acquired for a sanatorium and vested in the trustees are to be exempt from taxation and donations are permitted. Municipal aid, to the extent of \$2.80 per week for each poor patient, is figured on in Toronto.

All this points to a future of governmental activity in the matter of caring for tuberculous patients, with the idea of lessening the ravages of the disease. How necessary some action was in Canada is shown by some statistics given for the province of Ontario by the Registrar-General for the year 1899, which state that tuberculosis resulted in 3,405 deaths in that year, with 3,291 in 1898. It is figured that no less than 9,000 people die of the disease in the Dominion every year and that in Toronto alone half a thousand deaths result from it annually.

The league points out the fact that strong endorsements of the government sanatoria idea have been received from high sources and the members are now steadily at work on an effort to raise sufficient money to supplement the necessarily small grant from the authorities. The plans for the sanatorium include an administration building, cottages and tents for the patients and a tract of land between 50 and 100 acres in extent. It is planned to establish the institution within twelve miles of Toronto, and one of the requisites for admission shall be two years' bona fide residence in Toronto previous to receiving the benefits of treatment. The league plans to make it a rule that neither poverty nor any stage of disease, however advanced, shall be a bar to admission. Nor is it planned to make the institution eleemosynary. Patients who can pay are to do so, in proportion to their means, and only the very poor will receive free treatment. The establishment of the institution is regarded as an

investment on the part of the municipality and the other contributors to the establishment of the sanatorium, returns payable in increased health among the citizens of the province and in the actual monetary saving effected through the fact that in years to come the government will not be called upon to support those who are helpless as the result of systems enfeebled by consumption in their forbears.

If, as it is hoped, the Toronto sanatorium proves the opening wedge of a series of similar institutions all over the Dominion, perhaps the time is not too far distant when the "great white plague" may be entirely stamped out. And this is, undoubtedly, a "consummation most devoutly to be wished".

EDITORIAL NOTES

Interest in tuberculosis is on the increase all over the country. One of the more recent signs of this is the establishment of a course of free lectures by the committee on the prevention of tuberculosis in New York. Lectures will be delivered every month in the hall of the United Charities building and a number of medical authorities will have a place on the programme. Dr. J. H. Huddleston has already spoken on the subject and the list of speakers to come includes Drs. Biggs, Janeway, Jacobi, Bryant and others. The lectures already given in various parts of the city have proved of great benefit, particularly in the thickly-settled districts of the city.

The Germans are certainly great excavators and archaeologists. The *Lancet* reports that Dr. Rudolph Herzog has discovered the temple of Aesculapius, for which search has been so long continued. The site of the temple is beneath an old

Byzantine church on the island of Cos, in the Aegean Sea, where Hippocrates was born and where the Aesculapian doctrines were taught. The temple contains among other things a statue of Hygeia and an image of a serpent, symbol of healing. Germany has apparently scored again.

Popular subscriptions will be one of the bases for raising money for the support of the New York Post-Graduate Hospital, and residents of the east side of the city, where much of the good work of the hospital association has been done, will be relied upon to raise a large sum of money, in sums of \$1.00 from each. Subscriptions in larger amounts will also be solicited, and it is announced that four persons have promised to give \$25.00 each if the association will raise the sum of \$100,000. The hospital has been run at a loss for some time past, and in view of the increased demand for its services the money is necessary.

Prof. Adolph Lorenz, the Vienna surgeon who recently made a visit to Chicago to perform his operation for the reduction of congenital dislocation of the hip on little Lola Armour, has been made a Doctor of Laws (honorary) by Northwestern University. The degree was conferred on Dr. Lorenz on November 28 and the attendant ceremonies were witnessed by the trustees of the college, the members of the faculty and several hundred guests.

It is proposed to revive the Victorian Order of Nurses in Halifax, where the branch of the order established by the Countess of Aberdeen died a few years ago. The physicians who practice among the poorer classes in the neighborhood feel the lack of nurses and the branch of the honorable order will be put on its feet again by a number of philanthropic ladies of Halifax.

A writer in the *Pennsylvania Medical Journal* hits the Christian Science business fairly, when he sums up their belief as follows: "Matter has no existence. Our bodies are composed of matter. Therefore, our bodies have no existence. Hence, it is conclusive that disease cannot exist in a non-existent body." He then goes on to say: "That this is the correct theory of so-called Christian Science no one can deny who reads the works of its founder. And it does seem as though no serious argument was required to convince any person, of reasonable intelligence, that the Christian Science philosophy is nothing more than a self-evident absurdity."

Pneumonia formed the subject for discussion at the meeting of the Wayne County Medical Society, held on the fourth of the month at the Hotel Normandie. The programme of papers was as follows: "Pneumonia in Childhood", Dr. A. D. Holmes; "Pneumonia in Adults", Dr. E. A. Chapoton; "Complications and Sequelae", Dr. S. G. Miner. The discussion was opened by Dr. Charles Douglas, Dr. W. R. Chittick, Dr. J. J. Mulheron and Dr. Willard Cheney.

What quarantined people expect to receive from the city health department in Detroit is demonstrated by the following requisition, made on the health officer recently: "Five lofs of bread Pound of coffee two pounds of poder house stake too Pounds pork Chops one Chicken twoo Dozen Cakes twooo pound of Shuger pound of Sault two bars of sope one boxe of matches galen oil tree Smoke Fiche pound of Cream Chies two pounds of ote miel helf pound of tea one pound of butter dozen of egg pounds of pruens."

The old Bellevue Medical College building is undergoing a process of transformation. The four walls, which have

been in position for more than forty years, will be left, but the whole inside is to be changed. The dispensary will be placed on the first floor, the second floor will be the lecture hall for nurses and the third and the fourth floor will be made into a dormitory, where the 150 employes of the hospital will be taken care of.

An Italian has compiled statistics which show the evils of marriage among the insane. His report states that 889 families have contributed 1,958 inmates to thirty-two of the Italian asylums. Among them are 1,058 groups of relatives —10 of grandparents and grandchildren, 257 of parents and children, 488 of brothers and sisters, 153 of uncles and aunts and nephews and nieces and 150 of cousins.

Considerable satisfaction is expressed in medical circles over the appointment of Johannes Orth, professor of pathological anatomy in the University of Göttingen, to succeed the late Rudolph Virchow in the chair of pathological anatomy in the University of Berlin. Professor Orth was Virchow's assistant for a number of years and is naturally thoroughly familiar with the ideas and methods of his chief.

New York is afraid of a general visitation of trachoma. Nearly 15,000 school children have been taken from school by order of the health authorities and the city finds itself at a loss to know what to do to check the spread of the disease, which it is feared will assume large proportions.

The *Philadelphia Medical Journal* conducts a laboratory for the purpose of furnishing physicians with reports on treatment which shall be of practical value to physicians. The first contribution from Dr. Henry Leffman, director of the laboratory, is a report on the commercial form of hydrogen dioxide.

NEW INSTRUMENTS & DEVICES

Mention of new instruments and devices in this department is entirely complimentary and articles illustrated are judged on their merits.

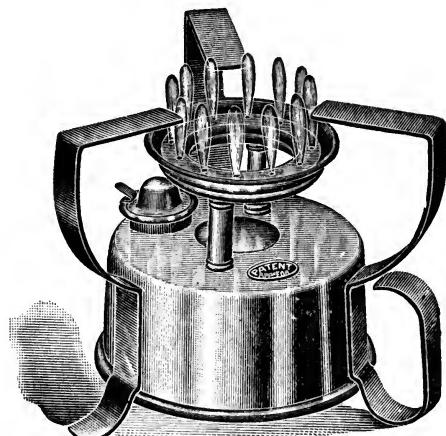
We invite manufacturers and physicians to send us matter suitable for publication under this head. A description of the device and an electrotyp or halftone with a base not greater than two and five-eighths inches should be sent.

Always mention the price of the article in question.

The management cannot undertake to return cuts unless postage for same accompanies the letter with which they are sent.

GLOGAU ALCOHOL-GAS STOVE.

For convenience, lightness and cheapness, this is one of the best stoves we have seen. It weighs only half a pound, yet it holds seven ounces of alcohol and

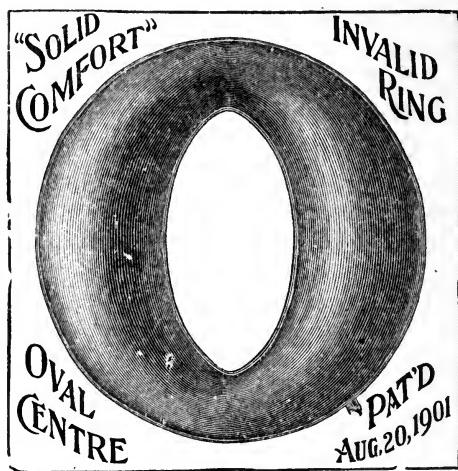


will support a vessel that weighs 100 pounds. It is claimed by the manufacturers that it burns as steadily as a gas-stove, without smoke or odor, and that the wick does not have to be renewed from time to time. Either wood or grain alcohol may be used to generate the gas and the construction of the stove is such that it may be upset without spilling the alcohol or causing an explosion. An idea of the rapidity with which heat is gen-

erated, and the intensity it develops may be gained from the statement that it boils a quart of water in twelve minutes. Physicians who have no gas in their offices will find the little stove convenient for sterilizing their instruments and for getting hot water speedily and at a small cost; in fact the uses to which it may be put are almost numberless. A great advantage which the stove possesses, one which will probably prove popular with the profession, is its price. It costs \$1.00 and this price covers carriage.

INVALID'S RUBBER RING.

The manufacturers call this device the "solid comfort" ring and indeed it is a boon to the weary patient who gets so tired of sitting up, but is better up than

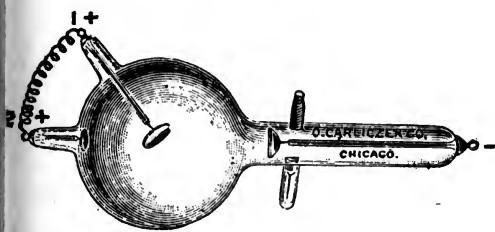


in bed. Rubber rings for invalids are by no means new, but there are some features about this one that makes it unusually attractive. Its oval centre allows it to conform well to the shape of the user's body, while at the same time it admits of free ventilation, and the manufacturers claim that upward pressure in front or back is prevented also. It is a new thing, and physicians who have patients that need something to make them sit more easily would do well to get one. Or, the busy practitioner might well get

one for his own use, to sit on in his few moments of idleness. Slate rubber is the material of which the ring is made, and it comes in three sizes. Possibly the most popular one will be the medium size, 15 inches in diameter, which retails for \$3.00.

ROENTGEN X-RAY TUBES, WITH REGENERATING ATTACHMENT.

Chemical regulators for X-ray tubes have been in use for some time and their use has been fairly successful in maintaining the vacuum; the difficulty has been that when the vacuum has once become high after the use of chemicals a stronger discharge is always necessary to start the tube to working. The tube il-



ustrated herewith has a regenerator by which the vacuum may be lowered to the requisite degree, without having it rise after the tube has been used.

The means employed takes advantage of the faculty of certain platinum alloys to absorb hydrogen, when at a red heat; and the device consists of a small tube of palladium, closed at one end and the other open end fused into the cathode neck of the X-ray tube. The palladium tube is covered with a removable glass tube and when it is desired to lower the vacuum the latter is taken off and the exposed tube of palladium is heated blood red in the flame of an alcohol lamp or a Bunsen burner. Care must be taken not to let the flame touch the glass and not to heat the tube too near the glass. Old tubes may have their vacua repeatedly reduced in this manner, and they should be permitted to cool for at least 15 minutes after being used and regenerated.

THERAPEUTIC BREVITIES

Loctophosphate of Calcium in Scrofulosis.—Hare, writing in the *Journal of the American Medical Association*, suggests:

- R Syr. ferri iodidi, 3 j.
Ol. morrhuae.
- Syr. calcii lactophos., aa 3 j.
Aq. calcis, q. s. ad 3 iv.
- M. Sig. Shake well and take from two to three teaspoonfuls after each meal.

Pruritus Ointment.—An exchange says to try:

- R Mentholi, 3 j.
Cerat. simp., 3 ij.
Ol. amygdal dulcis, 3 j.
Ac. carbolici, 3 j.
Pulv. zinci oxidii, 3 ij.
- M. Sig. Apply morning, noon and night, after cleaning the parts.

Cough in Phthisis.—Doctor, try this prescription, says the *Medical Record*:

- R Codein, gr. 1½.
Terpin. hydrat., gr. 15.
Ext. hyoscyami, gr. 1½.
Ext. belladonnae, gr. ¾.
Mas. cyroglossi, gr. 7½.
- M. Ft. pil. No. x. Sig. One four times

Sweet Gratitude.

"Thank God for the doctor," the layman cried,
As he watched him with bated breath
And saw the physician with skillful touch
Saved the one that he loved from death.
"Thank God for the doctor," he humbly moaned
"Every hour of my life I owe,
To him who has saved us this life to-day;
Saved the home from its grief and woe."
There were honest tears in the layman's eyes
As he held in a vise-like grip,
The doctor's hand that was thin and cold,
And pressed it with fervent lip,

* * *

What a lovely thing is this gratitude!
How sweet the reward we gain!
For the labor we do for the sick and weak;
Our labor of hand and brain!
What a wealth we have for our daily work
For those who are sad and ill,
How sweet to the ear is the grateful word
Until we present the bill!
Oh, wise was the man who of Old Nick wrote
"When sick quite a monk he'd be,"
But gaining his health—what a truth it was—
That "devil a monk was he."

NOTES & COMMENT

Virchow Monument Subscriptions.—The German Committee in charge of the celebration in honor of Rudolph Virchow's eightieth birthday, Prof. Waldeyer, Chairman, Prof. Posner, Sec., has begun collecting funds for the purpose of erecting a monument in memory of that great and unique man and physician. The undersigned are anxious and ready to receive contributions, which will be duly acknowledged: Frank Billings, President of the American Medical Association, 100 State St., Chicago, Ill.; Thomas D. Coleman, 505 Green St., Augusta, Ga.; A. Jacobi, 19 East Forty-seventh St., New York City; W. W. Keen, President of the Congress of American Physicians and surgeons, 1729 Chestnut St., Philadelphia, Pa.; Wm. H. Welch, 935 St. Paul St., Baltimore, Md.

Faithful to His Employer.—The *Washington Star* publishes a good story on Senator Gallinger, of New Hampshire, who was for a number of years a practicing physician. When he was active in his profession, he visited a patient who lived next door to a house in which a death had just occurred. There was crape on the door and a curious passer-by, seeing the sombre sign, asked the coachman of Dr. Gallinger, who was waiting with his horse for the doctor to come out, who it was that had just died. The coachman's reply was a characteristic one. "I don't know", said he. "It's not of our killin'—it's not of our killin'." Then he drove his horse directly in front of the house where Dr. Gallinger was attending a patient who was to recover.

How We Are Liked.—

Woodstock, Ky., Nov. 10th, 1902.
DETROIT MEDICAL JOURNAL,
Detroit, Michigan.

I have received the last three numbers of your invaluable JOURNAL and send enclosed 25 cents for same. I am ceasing to read. This is from age, ill health and blindness. I get my son, who lives ten miles away, to read the DETROIT MEDICAL JOURNAL for me and I like it very much. I think it is well worth double the price and if I could read I would continue it.

Yours truly,

(Signed) W. H. Bentley, M. D.

A Continuous Performance.—An unbroken record of success attests the high state of perfection to which the Oldsmobile has attained. Two blue ribbons in the Chicago Endurance Run, first against the crack French and American racers in the two five mile events at St. Louis, and the remarkable record of being the only machine in its class to complete the course without a penalized stop in the New York-Boston Reliability Run are emphasized by the winning of three cups for first places in one afternoon at the meet under the auspices of the Chicago Automobile Club.

Everything necessary for speed, endurance and reliability is found in the Oldsmobile and the fact that there are no unnecessary attachments gives this popular little runabout the immense advantage of simplicity over its more ponderous and cumbersome competitors.

In addition to the first cost of the Oldsmobile being extremely low, its practical and simple construction does away with the dependence of the owner on the repair shop and verifies the statement of the Olds Motor Works that this Automobile is "built to run and does it."

Re Local Anæsthesia.—W. C. Woods, of Brooklyn, makes the following suggestions in the *Medical News*:

1. To produce skin anæsthesia, intra-dermal and not hypo-dermal infiltration is necessary.
2. Intra-neural or para-neural infiltration in the trunk of a nerve is equivalent to complete section of the nerve as far as sensory impulses are concerned.
3. Elastic construction prolongs the anæsthesia.
4. Proper infiltration permits the use of very dilute and non-poisonous solutions, for pressure on the nerve ends will alone produce numbness.
5. All tissues and organs of the body except the skin and nerves, when inflamed, have little or no sensation.
6. Morphine should be used systematically as a preliminary to all local anæsthesia to lessen the psychic pain.
7. Local anæsthesia can be supplemented when necessary by chloroform or ether for a brief period in certain steps of an operation with less danger than if the general anæsthesia was given continuously.

Eat To Live.—*Good Health* asks: Do we eat too often? Among most civilized people it is the usual custom to eat three, four or five times a day while in England one occasionally meets people who regularly eat six times a day. The ancient Greeks, according to Pythagoras, ate but once a day. But his recommendation of the plan of eating twice a day was adopted, and on a diet of simple foods, consisting chiefly of wheat figs and a few vegetables, that country produced the finest race of men the world has ever seen.

Good for Chicago.—A hospital with suites for guests and sumptuous wards for patients is soon to be erected in Chicago, at a cost of \$400,000, exclusive of land, furnishings and equipment. The

hospital will be known as the Shore Inn, and will be 11 stories high. Eighty of Chicago's leading physicians have each subscribed for \$5,000 worth of stock. This will be a hospital where a patient who considers his comfort of most importance can bring his family or friends and install them in luxurious suites in the building where he is being treated.—(*Philadelphia Medical Journal*.)

Those Careful Parisians.—A young Parisian woman, who recently became engaged to be married, on applying for her official papers, discovered that a mistake as to her sex had been made, and she had been put down on the register as a boy. She also discovered that the police, believing her to be a boy, had a warrant for her arrest for not presenting herself for military service. She will now have to prove her identity, and, in the meantime, the marriage has been postponed indefinitely.—(*Philadelphia Medical Journal*.)

Hawaiian Physicians.—It has been announced that all physicians now practicing medicine in the Hawaiian Islands will have to take examinations to secure new licenses, on the recommendation of the board of medical examiners recently appointed. The Japanese physicians have protested against passing new examinations. There are in all 31 physicians practicing in Hawaii.

Another Honor for Lister.—The Copley medal has been awarded this year to Lord Lister. This medal is regarded as the "blue ribbon of science." It was founded in 1709, by Sir Godfrey Copley, for distribution to the living authors of such philosophical research, either published or communicated to the Society, as might appear to the Council to be deserving of that honor.—(*Philadelphia Medical Journal*.)

BOOK REVIEWS

A Text-Book on Diseases of Infancy and Childhood. For the Use of Students and Practitioners. By Henry Koplik, M. D., Attending Pediatrician to Mt. Sinai Hospital, New York; Ex-President American Pediatric Society, Etc. Octavo, 675 Pages, 169 Engravings and 30 Plates in Colors and Monochrome. Price, Cloth, \$5.00 Net. Leather, \$6.00 Net. Lea Bros. & Co., Publishers, 706-710 Sansom Street, Philadelphia, Pa.

Knowing Koplik's wide experience in the subject of which he writes, this book of his was picked up for review with the idea that something valuable was to be gained from a reading of it; and this idea proved to be correct. While the book contains the credited views of pediatricians of all nations, their statements have not been merely compiled. Koplik's own knowledge and long experience have made him an excellent judge of the value of other writers' work and what he selects from their monographs and their more extended writings is that which he has found to be good. The work, then, may

properly be said to be authoritative and practical and is in these respects an ideal book for students of the subject of pediatrics. Koplik's fellow-practitioners, too, may find the sum of modern knowledge on their specialty here, the text carefully edited, arranged and published.

The illustrations, where it was practicable, have been taken from life, the author's own patients serving as subjects. A large number of well considered tables and charts find a place in the pages, also, and form a valuable adjunct to the usefulness of the work. Koplik has put much of his own experience and much of his own personality into this book on a subject with which he is so familiar and the

result is that the book is well worth having, be the reader student or practitioner. The publishers have done their share in seconding Koplik's work.

Disinfection and Disinfectants. A Practical Guide for Sanitarians, Health and Quarantine Officers. By M. J. Rosenau, M. D., Director of the Hygienic Laboratory and Passed Assistant Surgeon U. S. Public Health and Marine-Hospital Service, Washington, D. C. Illustrated. Pages, 344. P. Blakiston's Son & Co., Publishers, 1012 Walnut St., Philadelphia, Pa., 1902.

Rosenau's experience speaks through this small but complete volume, which embodies the latest and best methods of disinfection on either a small or a large scale, though public disinfection naturally claims the greater share of our author's attention. His work in disinfection, both in the laboratory as a scientific experimenter and in the field as an officer of the public health service, has well qualified him to speak on this most important subject. His book may be said to be a compend of modern knowledge on the subject of disinfection.

The physical agents for disinfection are first considered, that the gaseous disinfectants and the chemical solutions in use for the same purpose, the uses and purposes of insecticides, and the disinfection of houses, ships and objects. The book closes with a valuable chapter on disinfection for the communicable diseases.

A useful aid to the understanding of the reader are the illustrations, of which there are many, a number of them in half-tone illustrating the apparatus in use by boards of health for disinfection on a large scale. Complete directions are given for the operation of the more complicated apparatus, with a few words on the salient points of each. We can heartily recommend this book of Rosenau.

A Text-Book of Anatomy. By American Authors. Edited by Frederic Henry Gerrish, M. D., Professor of Anatomy in the Medical School of Maine, Bowdoin College. Second Edition, Thoroughly Revised and Enlarged. In one Imperial Octavo Volume of 943 pages, with 1003 Engravings Engravings in Black and Colors. Cloth, \$6.50, Net. Leather, \$7.50, Net. Flexible Water-Proof Binding, for Use on the Dissecting-Table, \$7.00, Net. Lea Bros. & Co., Publishers, Philadelphia and New York.

Inside of two years the first edition of this work, which gained enviable distinction for its editor, collaborators and publishers, was exhausted. The present form is the result of the demand for it. The work is claimed by its publishers to be the most richly illustrated book on the subject extant and it is certain that the engravings in this edition are not only numerous but well chosen and well executed. The work is already in use as a text-book in a large number of medical institutions and has even been received with favor on the other side of the Atlantic, where men of medicine are not too prone to look with favor on American anatomists' writings.

A change in illustrations in the second edition consists in replacing the schematic representation of the arteries, muscles and so on by a series of horizontal sections at different levels, with the names of the parts printed in the illustration. This is a valuable aid to the student, who should find this work an excellent one from which to study. The book is quite as well adapted to the use of the practitioner, whether physician or surgeon, as it is to the needs of the student. All may learn something from it with information in a conveniently arranged shape.

A Text-Book of Physical Diagnosis. For Students and Practitioners of Medicine.

By Egbert Le Fevre, M. D., Professor of Clinical Medicine and Associate Professor of Therapeutics, University and Bellevue Medical College, Attending Physician to Bellevue and St. Luke's Hospitals, Etc., New York. 12mo, 1440 Pages with 74 Engravings and 12 Plates. Cloth, \$2.75 Net. Lea Bros. & Co., Philadelphia and New York.

Le Fevre dedicates this small but complete book to his students, whose "Why?", he says, furnished the incentive for the work. Possibly with this in mind, he has gone into careful detail in much of his text, though he covers a large amount of ground at the same time. The book embodies the principles employed by the author in a successful career as a teacher in one of the largest medical colleges. He presents the most recent findings in the field of physical diagnosis, and since the ability to make an intelligent diagnosis is always of prime importance to the physician, young or old, the book should be of value to students other than those who have enjoyed the personal instruction of the author. The book contains a chapter on examination with the Roentgen rays and a number of clear and interesting plates are shown. The other illustrations are well chosen and executed and should prove full of information for the careful reader. The book's best excuse for entering a field of medical literature which is already under a reasonably thorough cultivation, is to be found in the pages of text in the book itself.

The Physician's Pocket Account Book, consisting of a Manilla-bound book of 208 pages and a leather case. By J. J. Taylor, M. D. Price, \$1.00 complete. Subsequent books to fill the case, 40 cents each, or 3 for \$1.00. Published by the Medical Council, Twelfth and Walnut Streets, Philadelphia, Pa.

We are strangers to this book, which combines a number of excellent features in its make-up. It is simple, convenient, neat and compact, has plenty of space for all necessary data and is well adapted for the use to which it is intended to be put. The blank-book itself is readily slipped out of the leather case, when it has been filled, or when the accounts in it have been entirely closed. It makes use of a one-entry system of book-keeping, and every facility is furnished for the accurate keeping of accounts. Most members of the profession need to have the matter of keeping accounts made very easy for them, and this form will prove a boon to them. Each account has its own page, and an index shows where each account is located. The form could not well be made more simple, nor more satisfactory.

The Medical News Visiting List for 1903.

Weekly (dated for 30 patients); Monthly (undated, for 120 patients per month); Perpetual (undated, for 30 patients weekly per year). The first three styles contain 32 pages of data and 160 pages of blanks. The 60-patient perpetual consists of 256 pages of blanks. Each style in one wallet-shaped book; with pocket, pencil and rubber. Seal Grain Leather, \$1.25. Thumb-letter, 25 cents extra. Lea Bros. & Co., Publishers, Philadelphia and New York.

Every practitioner needs a visiting list in a handy form so that he may keep accurate track of his patients and their indebtedness to him. The form offered by Lea Bros. is simple, compact and very convenient for a busy man. The book opens with 32 pages of printed tables, containing useful information, including a full-page plate showing the incisions to be made for the ligation of arteries. The blank pages are well arranged and the book is printed on a good quality of tough paper, which will take a pencil or a pen.

The Physician's Visiting List (Lindsay & Blakiston's). For 1903. Fifty-second Year of its Publication. Arranged for 25 patients per day or week. Published also for 50, 75 and 100 patients per day or week, in two volumes. A perpetual edition is published with 1300 or 2600 names arranged for. Bound in Leather, with pocket, pencil, eraser, etc. P. Blakiston's Son & Co., Publishers, 1012 Walnut St., Philadelphia. For more than half a century this form of visiting list has been on the market and each year the edition is printed larger than it was in the preceding year—proofs that it has gained a high reputation with the profession. The present form, in addition to the information carried in last year's issue, publishes special pages on incompatibilities, chemic, pharmaceutic and therapeutic, and a page on the immediate treatment of poisoning. It is an admirably designed and complete little pocket-record and an ever-handy ready-reference guide for the medical profession. It is likely to have a larger sale than ever this year.

The Physicians' Protective Accountant Including Ledger of Monthly Balances and Index of Accounts and The Physicians' Protective Visiting List. Pages 250-64. Price, with 12 visiting lists \$2.00. Clinic Publishing Co., Ravenswood Station, Chicago, Ill.

A handy and an excellent form for the busy physician. A permanent ledger of monthly balances and index of accounts provides space for entries and necessary data, while a movable monthly visiting list gives the names of the patients, dates, services rendered and amount to be entered in the ledger. A thumb-index for the ledger and a simple index for the visiting list provide the means of ready reference. A three-year index occupies the inside front cover of the visiting list. One good feature of the outfit is that the accounts, when properly entered, will hold water in a court.

SURGICAL CLINIC

BY H. O. WALKER, M. D.,
DETROIT, MICH.

DECEMBER 6, 1902

AT HARPER HOSPITAL

ABDOMINAL HYSTERECTOMY

Gentlemen:

I have today, a series of interesting cases that represent some common forms of abdominal surgery, the first of which is a uterine fibroma, not very large in size, but of sufficient annoyance to demand, in my opinion, surgical interference.

This woman, Mrs. N., aged 46 years, of very quiet habits, has never borne children, nor has she had a miscarriage. I have said fibroma, yet it is possible a malignancy may exist. A very distinguished abdominal surgeon of another city pronounced it either one or both, that is, he was in doubt as to the character of the growth. Non-fecundating women, however, are more prone to fibroid tumors of the uterus, while malignancy is more common in women who have given birth to a number of children. This patient has had several menorrhagias, first slight in May of 1902, worse in June, with pain in back. In July it was very severe, lasting three days, from which she fainted. During the months of August and September the hemorrhages were about the same, while during October she flowed the entire month, and a part of November. The last severe hemorrhage was on November 17. Her general appearance is that of having lost flesh, anemic, with a yellowish tinge. She has a constipated habit of ten years' duration, with bladder and general nervous irritability. Inspection shows lower abdominal prominence, and by bimanual manipulation there is no difficulty in mapping out a movable spherical tumor, comfortably filling the pelvic cavity. Having made our diagnosis, the question is, what shall we do and how shall we do it?

It is my judgment that we do a hysterectomy and through the abdomen. Although the tumor is not large, it would be a difficult procedure to remove it through the vagina, and the haemostasis would have to be done by forceps and not by ligature, and I do not think a vaginal hysterectomy, when forceps have to be clamped on the uterine and ovarian arteries, should be done. In the first place the forceps are instruments of torture, and in the second place the sloughing stumps are so liable to sepsis, when if ligatured and the pelvic floor closed, these conditions do not exist. A small vagina, as in this case, precludes a satisfactory vaginal hysterectomy. We will therefore proceed to do an abdominal hysterectomy. Our preliminary work of emptying the bowels with two ounces of castor oil, hot bath, abdominal shave and vaginal antiseptic douche, together with our present ten minutes' wash with hot water and soap, alcohol and final bichloride solution immersion, has been rigidly performed, we are ready to make the median abdominal incision through the integument, fat, fasciae and linea alba, when the peritoneum is caught by two forceps, between which it is carefully cut so as not to injure either the intestine or bladder. Although the bladder has been emptied, yet I have seen it extend so high up, as to have been mistaken for a thick peritoneum and unwittingly cut, as well as the intestine, when done carelessly. The incision extends up a little more than half way up to the umbilicus from the symphysis. In passing my hand into the abdomen to ascertain if adhesions exist, I find none, but do feel a fairly good sized hydrosalpinx on the right side.

The uterus is now drawn through the abdominal opening by means of a vulsellum forceps, when by a long-bladed forceps the right ovarian and uterine arteries are clamped well outside the tube and ovary, inclining the point of the forceps to the cervix; another forceps clamps them in the same manner close along side of the uterus, leaving a triangular space between them. The triangular space is then cut to its apex, and the same method is performed on the other side.

This gives complete haemostasis for the time. The next step is a semi-circular division (convexity upwards) of the peritoneum in front of the uterus, and the same posteriorly, the cuts meeting on each side, when it is peeled down nearly to the cervix, catching all bleeding points. You will observe that the patient has been put in the Trendelenberg position and the whole field of operation coffer-dammed with soft towels. The next step is the securing, with ligatures, of the arteries which are readily seen and tied and the two clamps removed, leaving those on each side of the uterus. In tying the uterine arteries watch out for the ureters in order not to include them in the ligature, as they are very close together at this point. I had provided, however, for this contingency when I put on the forceps. In cutting off the uterus I have made a wedge-shaped incision into the neck, so that when it is sewed up, it can be more accurately approximated. You will notice that as soon as the section was made, to prevent sepsis, we had in readiness swabs of cotton which were dipped in carbolic acid and pushed into the cervix and allowed to remain a minute when a swab of cotton was dipped in alcohol and applied to counteract the effect of the carbolic acid. All bleeding points being secured, the wedge-shaped incision into the cervix is approximated with catgut, and the peritoneal flaps which were stripped off the uterus are

caught and approximated accurately by a continuous catgut suture (double No. 1) caught at every third stitch so as to avoid puckering of the line of suture. Removing the abdominal towels it will be observed that we have a perfectly dry peritoneal cavity, and that it is absolutely closed off from infection below, and now we close by layer suturing with double-threaded catgut, not tightly drawn, doing as was done in the peritoneal flaps, closing the integument with a continuous silkworm gut suture. We will now lay open the uterus and pass it round.

You observe that the uterine wall is much thickened and that I have made a section through two good sized tumors, one above the other. Their character is so apparent that it is scarcely necessary to have a microscopical examination to determine them. They are undoubtedly sub-mucous myofibroma.

These might have been removed by enucleation and in a younger woman I should have made the attempt, as it is our first duty not to destroy the child-bearing function, but in this woman the climacteric period was near at hand, and at the same time the possibility of malignancy had to be borne in mind. While it is true that fibroid tumors atrophy after the menopause, I do not feel any compunctions of conscience in doing what I did in this case. I consider under the circumstances I did what was right, taking no chance of future probabilities.

The case was ideal, from the fact that the growth was not large and there were no adhesions to make the technic difficult, and the hemorrhage was almost nil. The tumor was a myo-fibroma (Fig. 1), and the patient made an ideal recovery.

Appendectomy and Removal of Cyst From Left Broad Ligament.

Case 2.

Miss S. R., aged 42 years, came from a distance to the hospital late last night for the purpose of having an appendicec-

tomy done this morning, and I saw her for the first time only a few minutes ago. Her physician, however, had written me previously in regard to the difficulty, stating that it was chronic or intercurrent appendicitis, and that a similar diagnosis had been made by other physicians. The house physician, whom I requested to get her history, informed me that she laid more stress upon a pain that she had in

week and several other milder ones followed of shorter duration, yet judging from other manifestations there are other pelvic disturbances. As she is now under the influence of the anesthetic (chloroform) I make a vaginal examination and find unmistakable evidence of a tumor, the size of an orange, in the left side, probably in the broad ligament. Now, as there has been evidence of appendiceal

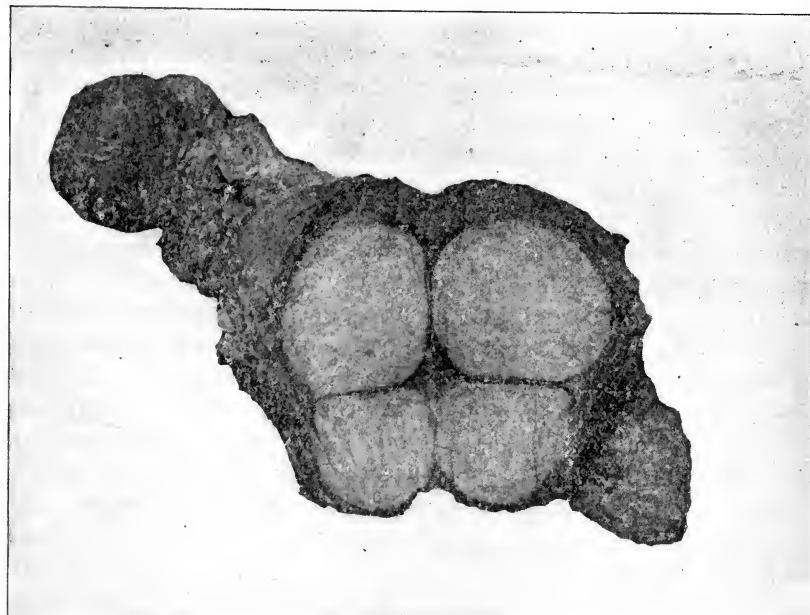


Fig 1. Showing Section of Uterus and Hydrosalpinx.

the left side than upon the right. Abdominal palpation reveals sensitiveness in right iliac fossa at a point that might be called the appendicul ovarian junction. There is also more pain on pressure low down on the left side, yet, owing to rigidity over the area, it is impossible to distinguish anything positively, and as the vagina is small, I have waited to make a bimanual examination when she is under the influence of the anesthetic before ascertaining the pelvic condition.

The diagnosis is therefore still in doubt, although she gives a history going back nearly a year, of one marked attack which might be appendicitis, lasting a

trouble it will be well to make a median incision and remedy whatever trouble may be necessary. As she is as properly prepared as time would permit, we will proceed with the operation. After opening the abdomen I find, as I predicted, a cyst in the broad ligament which ruptured as I had nearly enucleated it. Turning to the right side I find, as I bring it out through the opening, evidence of recent inflammation of the appendix and that its tip is adherent to the right ovary. There is also evidence of omental adhesions. These adhesions are peeled off and a purse-string suture of catgut introduced about the base of the appendix, then

cut off, treated with carbolic acid and alcohol, stump inverted, suture tied and reinforced with a few stitches. Cleaning out the "pelvic box" with dry gauze, the abdominal wound closed without drainage, as in the previous case.

It will seem that if I had not made a careful examination I would have done simply an operation for the removal of the appendix, and left an equally important condition for some one else to discover and do another operation. In many cases sent for operation upon the pelvic organs, the cause is found in the appendix, and the train of symptoms that is complained of is relieved by removing the appendix. On the other hand, the appendix may be only a part of the trouble, namely, a diseased tube and ovary, complicated with the extension of the trouble to the appendix. In all pelvic operations in the female, see to it that the appendix is healthy and whenever there is any suspicion of involvement, remove it, for as Dr. Price, of Philadelphia, says, "the danger is so slight, the operation so simple, so little time and surgery are required for the safe and clean removal of a very common offender, that I am strongly inclined to urge its removal in all cases, while doing pelvic surgery." There were no unpleasant symptoms at any time during her convalescence, and she left the hospital well on the twenty-second day.

Ferguson's Method for the Radical Cure of Inguinal Hernia.

Case 3.

N., male, laborer, aged 37 years, received a kick from a horse eleven years ago, which was followed by a hernia (indirect inguinal) for which he has worn a truss ever since. It became partially strangulated three weeks ago, while lifting in a moving van, and was reduced with some difficulty. As he lies upon the operating table there is no evidence of a hernia, but it protrudes while standing

up or with effort at coughing. The inguinal canal admits the index finger very readily. About five per cent. of all people have hernia, the larger proportion being in men. Over ninety per cent. are indirect, and it is estimated that one-sixth of one per cent. of all deaths are due to hernia. In considering the etiology of inguinal hernia, Marcy of Boston says that "The principal cause is due to a deficient fibrous aponeurosis," while Ferguson says that "The principal predisposing cause is a lack of complete origin of the internal oblique muscle from Poupart's ligament." Other predisposing causes are heredity, long continued and wasting diseases. The exciting causes are usually excessive, sudden exertion or some violence, as was the cause in this case, as he gives no evidence of its being congenital. His general condition is first-class, which makes him a good subject for operation. Dr. Ferguson noticed in doing operations for the relief of indirect inguinal hernia that there was deficiency in the origin from Poupart's ligament of the internal oblique and transversalis muscles, and owing to this deficiency full opportunity was given for descent of a hernia through the external ring. This condition was proved to be correct by a series of fifty careful dissections on cadavers, made by Dr. R. C. Turck, of Chicago, a report of which is found in the *Journal of the American Medical Association*, April 15, 1899. Reasoning on this basis, he did what he calls a "typical operation" for the restoring of this deficient origin, which I cannot better describe than by using his own words.

"First Step. Semi-lunar Skin Incision. Begin the incision over Poupart's ligament, one and one-half inches below the anterior superior spinous process of the ilium; extend inwards and downwards in a semi-lunar manner, circumventing the internal abdominal ring, and terminate it over the conjoined tendon near the pub-

lic bone. Cut carefully backwards with a very sharp knife and expose the vessels and pick them up with forceps before severing them, and thus prevent blood-staining of the tissues. Having passed through the skin, two layers of superficial fascia, fat, between them and superficial epigastric vessels down to the aponeurosis of the external oblique muscle, the will be noticed that it is not necessary to cut the superficial circumflex iliac, nor the superficial pudic vessels. Take a pledget of gauze and with it turn the flap of skin, subjacent fat and fascia downwards and outwards over the thigh. This procedure brings into view the aponeurosis of the external oblique muscle, the external abdominal ring, with its pillars and intercolumnar fascia, the hernial sac, if it has descended through the external ring, external surface of Poupart's ligament, the under surface of the flap covered by the deep layer of superficial fascia, and the superficial vessels.

"Second Step. Cut through the external abdominal ring and intercolumnar fascia; separate the longitudinal fibers of the aponeurosis of the external oblique muscle directly over the inguinal canal, far beyond the internal ring, over the surface of the internal abdominal oblique muscle, and up under the skin, to a point nearly opposite the anterior superior spine of the ilium. Delicate transverse fibers are encountered and severed. Retract the aponeurosis of the external oblique muscle and thereby bring into sight the deep structures, viz., the contents of the inguinal canal, the whole sac, with its adhesions, the spermatic cord, ilio-inguinal nerve, internal abdominal ring usually enlarged, frequently an accumulation of subserous fat, the cremasteric muscle, conjoined tendon, internal oblique muscle, and its deficient origin at Poupart's ligament, transversalis fascia, and the internal surface of Poupart's ligament. I consider the congenital deficient

origin of the internal oblique and transversalis muscles one of the most frequent and important causes of oblique inguinal hernia. Inspect these structures carefully, and now determine whether the operation is to be typical or atypical. When the structures are well defined and not too much weakened by pressure atrophy, a typical operation can be proceeded with.

"Third Step. This step deals with the sac and its contents; the cord, cremasteric muscle, and subserous lipomata.

"Sac. The sac is carefully dissected from the cord and internal ring; it is always opened, contents inspected and dealt with, and ligated high up over the inserted finger, cut off and the stump dropped. In atypical operations the sac is usually preserved, as recommended by MacEwen. If the sac be congenital, divide it in two, the distal half to form a tunic for the testicle, and the proximal to be treated as above mentioned.

"Omentum. When omentum is within the sac it is liberally withdrawn, tied en masse, cut off, covered with its own peritoneum, and returned within the abdomen. This decreases the intra-abdominal pressure and lessens the tendency to a return of the heria. At the stage of the operations when the sac is opened, it is frequently found advantageous to place the patient in the Trendelenberg position to prevent protrusion of and injury to the intestines.

"Cord. The cord is not disturbed. I have never been satisfied with the raising and transplanting of the cord. In more cases than have been recorded the testicle has come to grief by this unnecessary procedure. Tearing the cord out of its bed is without an anatomic reason to recommend it, a physiological act to suggest it, an etiologic factor in hernia, congenital or acquired, to indicate it, nor brilliant surgical results to justify its continuance. Leave the cord alone, for it is

the sacred highway along which travel vital elements indispensable to the perpetuity of our race. The veins in the cord are not disturbed, unless a varicocele complicates the hernia. If the cremasteric fibers are unduly thickening the cord, they had better be removed along with adventitious tissue that is not unfrequently present.

"Lipomata. An abnormal quantity of subserous adipose tissue is so often deposited around the sac and cord and along Poupart's ligament that it is an etiologic factor in hernia, and if it is not removed it tends to cause a return of the hernia. A systematic search should be made for fatty aggregations and they should be removed.

"Fourth Step. Restore the structures to their normal positions.

"Transversalis Fascia. It forms the internal ring. In hernia its fibers have become more or less stretched above and around the cord. The ring in consequence is abnormally large and the fascia bulges outwards. To rectify this condition, take up the slack in the fascia and make an accurately fitting ring for the cord by means of a suture, interrupted or continuous. Do not injure the deep epigastric vessels, nor pass the needle too deeply in the direction of the large iliac vessels.

"Internal Abdominal Oblique and Transversalis Muscles. Suture these muscles to the internal aspect of Poupart's ligament, and restore their normal origin. I usually freshen the lower border of the muscles and scarify the surface of Poupart's ligament to insure firm union, and extend the sewing fully two-thirds down Poupart's ligament, which is the normal origin of this muscle in the female. Take care not to split Poupart's ligament by grasping with the needle the same longitudinal fibers each time. It is surprising how easily these two structures come together without the least discernible tension, and it is gratifying to

observe how perfectly these powerful muscles cover and protect the internal abdominal ring and inguinal canal.

"Aponeurosis of the External Oblique Muscle. Bring together the separated edges of the aponeurosis of this muscle. Restore the external abdominal ring.

"Flap. In bringing the skin flap into normal position, be sure and coapt all its structures, like to like, especially the deep layer of the superficial fascia.

"Commendable Features, I:

"The different structures in the abdominal wall are placed in their normal relationship. (1) The tying of the sac restores the normal rotundity of the peritoneum. (2) The suturing of the transversalis fascia, forming a new internal ring, at the same time obliterates the hernial infundibiform process. (3) Sewing the internal oblique and transversalis muscles to Poupart's ligament secures a normal origin for them and they then find perfect protection to the internal ring cord and canal. (4) The suturing of the separated fibers of the aponeurosis of the external oblique protects the underlying muscles and cord, while the skin flap covers all.

"II. The four lines of suture are no opposite each other, thus securing an overlapping of the weak parts (lines of repair) by normal tissues.

"III. The semi-lunar incision has great advantages. (1) The hernial area is uncovered as in no other way, thus affording its accurate observation of structural relationship, etiologic factors and pathologic features and pathologic conditions. (2) There is less tendency to skin infection, extending to the deeper structures. (3) Should, unhappily, a return of the rupture occur, there is no scar over it and a truss can be better borne.

"IV. Of all the operations that I have performed, it is the simplest and easiest to execute. There is a good scientific rea-

son furnished for every step in the operation."

hesions, caused by the so-called injection treatment that he had received. I have

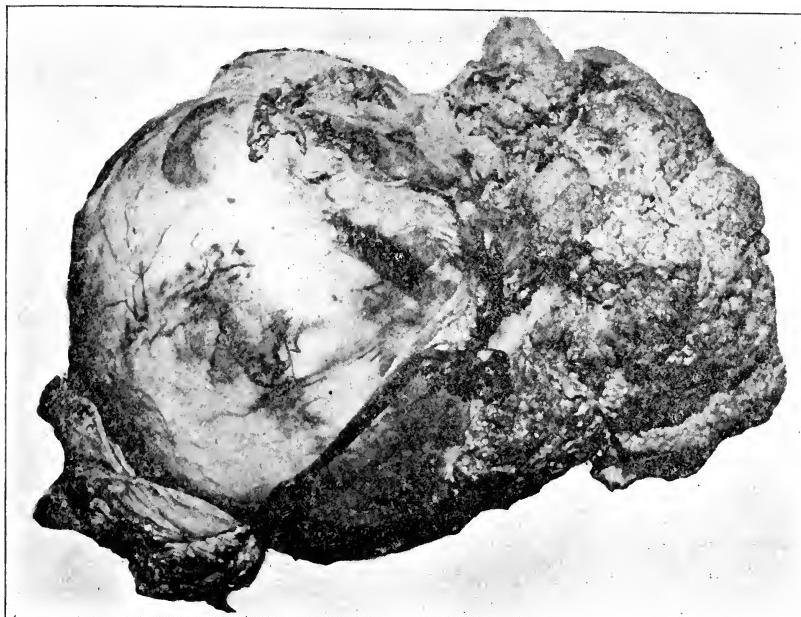


Fig. 2. Right Ovary.

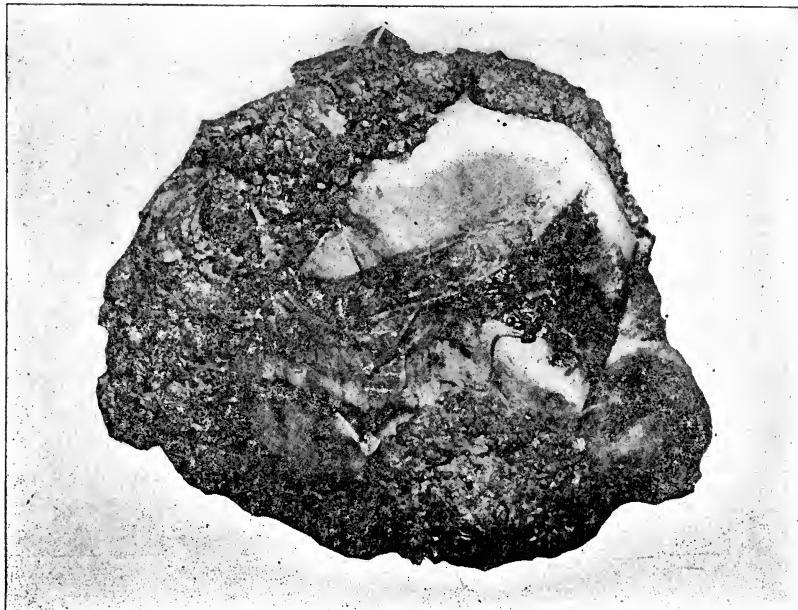


Fig. 3. Left Ovary.

The separation of the sac in this case has been difficult and tedious, owing to the fact that there were many old ad-

hesions, caused by the so-called injection treatment that he had received. I have done this operation a number of times, and although sufficient time has not elapsed since they were done to say

whether a relapse may not occur, yet up to this time there have been no recurrences. The method commends itself, first as to simplicity and secondly that it is a rational procedure as it leaves the cord in its natural position and restores the abdominal wall. This "typical operation" has been adopted by many surgeons. Patient made an uninterrupted recovery.

Double Ovarian Cysts.

Case 4.

These specimens (Figs. 2 and 3) that I present to you, I removed November 29, 1902, from a woman aged 63 years, with the following history: Mother and two sisters died of pulmonary tuberculosis. She has given birth to five children. Two are living in good health while the others are dead. Her health has been fair up to about ten years ago, when she began to complain of a heavy feeling in the pelvic region.

A partial uterine prolapse occurred shortly afterward. October 1, she was seen by her physician, Dr. E. R. Campbell, of Flint, who found a complete prolapsus uteri, which could be replaced, but which would immediately come down again. He was also able to diagnose that she had large tumors on either side of the uterus, together with a considerable accumulation of fluid in the abdominal cavity. She voided urine in the knee-chest position. He advised operation, but she declined, saying that she would be unable to stand it, owing to her age and her feeble condition. Dr. Campbell was called to see her again November 18, when he found her suffering from a localized peritonitis, with a temperature of 102.1 and a pulse of 120, with an appreciable increase of the fluid in the abdomen. Her condition gradually improved in the following ten days, so that she could be operated on.

When I saw her November 29, which was about an hour before the operation, I found her emaciated, but cheerful. The

prolapsus was about as complete as I had ever seen. Inspection and palpation revealed a well-distended abdomen, with fluid. I had no difficulty in making out two good-sized tumors, undoubtedly ovarian, one in each iliac fossa. As all preparation had been carefully made, I immediately proceeded by making a median section, which extended from above the umbilicus to the symphysis. The fluid in the abdomen was dark in color and, after letting it out, the tumors, which proved to be large ovarian cysts, were removed, together with a considerable portion of the omentum, which adhered to them. The uterus, of course, had been

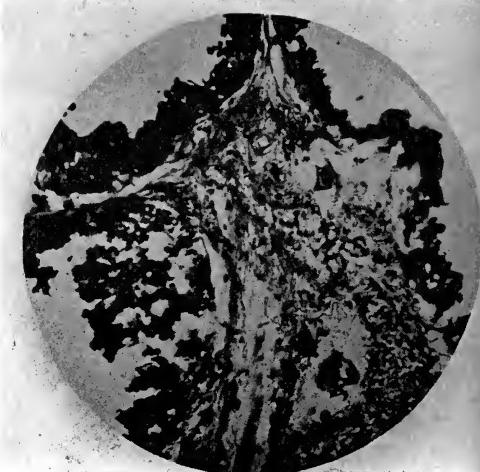


Fig. 4. Papillary Cystadenoma of Ovary
X 120.

replaced by the traction, and I fastened it by the ligatures which were used to tie off the ovarian pedicles to the recti on each side. After mopping out all fluid from the pelvic cavity, the abdominal wound was closed with interrupted silk-worm gut sutures and a gauze drainage was introduced, simply to draw off the ascitic fluid.

It presents this cystic ovarian tumor, not so much because there is anything out of the ordinary in an operative way, but to show a condition that is not common, namely, that of cystadenoma (Fig. 4).

You will observe this papillary growth, covering quite a considerable surface of each cyst, and on opening the cysts it will be seen that there is quite a similar condition growing from the inner wall of the cyst. The omentum was studded likewise. Although not malignant, it is on the borderland of malignancy, with the possibility of recurrence.

A recent letter from Dr. C. states that she has made an ideal recovery.

27 Adams avenue east.

Alcohol in Proprietaries.—A recent issue of *American Medicine* quotes Dr. Baumgartner as giving the following list of the percentages of alcohol contained in "patent" medicines:

Greene's Nervura.....	17.2
Hood's Sarsaparilla.....	18.8
Schenck's Seaweed Tonic.....	19.5
Brown's Iron Bitters.....	19.7
Kaufman's Sulfur Bitters.....	20.5
Paine's Celery Compound.....	21.0
Burdock Blood Bitters.....	25.2
Ayer's Sarsaparilla.....	26.2
Warner's Safe Tonic Bitters.....	35.7
Parker's Tonic.....	41.6
Hostetter's Stomach Bitters.....	44.3

Magnesium Dioxide in Anaemia and Chlorosis.—A recent discovery by Dr. Frederich Elias, of Berlin, is magnesium dioxide ($Mg O^2$), which, the discoverer claims, possesses the property of giving off large quantities of diffusible oxygen. The fact that oxygen is found so useful by the profession because of its important role in the support of the system, entitles the discovery of Dr. Elias to a trial at the hands of physicians. The discoverer has named his new product biogen, and the preparation is used successfully in those forms of disease characterized by lack of oxygen, by alteration of the blood components. For this reason it is used with particular success in diseases like anaemia and chlorosis.

UREMIA: A RESUME OF THEORIES AND RESEARCH.*

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Much has been written and many ideas held of the essential features of the uremic process, but it is only the more self-assured among the investigators who have thus far been willing to make positive assertions on the main point at issue, viz., what may we conclude are the causes of uremia in the ordinary acceptance of the word? Some have gone a long way around to end with the statement that this or that poison or process was not the cause, while this or that might be; and then the next writer has overturned the whole hypothesis.

Putting aside for the moment the question of ultimate cause, we may properly ask the investigators, "What is uremia?" In reply we should find an agreement that it is a train of symptoms mainly nervous in character, but the immediate action upon the nervous structures is a very unsettled question in the minds of those best qualified to express an opinion. Traube, for instance, saw in the process simply an œdema and an anæmia. The œdema was itself induced by a failure of the kidney to excrete water, leading thus to a thinning of the blood. This, by increasing blood-pressure, threw extra work upon the heart and so came the exudation into the tissues. The pressure of this exudation upon the vascular channels cut off nutrition and thus anæmia became the natural result of a process up to this point a purely mechanical one, following upon the affection of the kidney. It is practically needless to discuss this conception except to dismiss it; for the demonstration is easy that neither the œdema nor the nephritis nor the high tension nor the low specific gravity of the blood is, any one of them, an absolute essential of the uremic state. A more ac-

*Read before the Pathological Club, December 16th, 1902.

ceptable modification of the explanation by oedema is that of the pressure of fluid upon the centres along the cerebro-spinal axis, induced by, or at least accompanied by, a more important element, the toxæmia. Here, however, we are again at a point of division, for almost every constituent of the urine and the blood has, by increase or decrease, been held to present the essentially disturbed function. In fact we may, almost without hesitation, say that the battle royal of the whole controversy has been for sixty years and is still waged over the relation of the substance urea to the toxæmia presented. A large majority of investigators would perhaps admit at once the "retained urinary products" as the direct cause, or at least the manifest starting-point, of uremia, since this would include many of those both for and against urea in that connection; but another bone of contention arises in the word, *retained*, some of the latest experimentation being directed to the proof that not so much the mere retention as an enormously increased elaboration of poisons comes into play as an essential feature; in other words, the process is, according to this idea, to be considered primarily a disorder of metabolism. Just here we find those who, accepting the theory of disturbed metabolism, attempt to explain it further by the hypothetical disturbance of a hypothetical internal renal secretion, as suggested by Brown-Sequard. Again we find the claim that the metabolic product causing the symptoms of uremia is an albuminous body circulating in the blood of those with uremia, previously unrecognized. Finally it should be mentioned that von Jaksch and Von Limbeck believe that the process starts in an alteration of the alkalinity of the blood.

This glance over the field gives us at the start an idea of how far we are from being able to fall back upon any "consensus of the competent"; and perhaps

the best service I can render will be to run over, as briefly as may be, the evidence in favor of some of the more plausible explanations and bring together what we may feel some assurance of having demonstrated as fact, while pointing out the trend of the less certain but useful speculative thought. Much is written which the verdict of scientific criticism will not value greatly, and some efforts at the solution of the problem are little more than amusing. As an example of the latter class, I would refer to an article in the *Medical Record* of September 1st, 1900, entitled "The Discovery of Ureine, the True Cause of Uremia." This article read in connection with its scientific criticism by Dr. Weatherston in the *Journal of the American Medical Association* for 1901, gives one a comforting assurance that truth in scientific investigation will prevail. We can not all do the necessary experimentation nor observe the necessary abundance of clinical cases that will, I trust, in time settle this difficult problem, but we may well acquaint ourselves with the material presented and the criticisms passed upon it.

Among the earliest efforts to account for the symptoms of uremia on the ground of a toxæmia is that quoted by Bright in 1840 as the work of Bostock. Statements were made about the same time by Christison and others to the effect that urea was specifically accountable; its presence in the blood in increased amounts had been determined, and something had been done to observe its effect upon animals as early as 1822, but nothing in these early experiments had been done to prevent elimination. About 1865 Frerichs went over the subject and denied the possibility of urea being the cause of uremia because, he said, urea did not induce in animals the symptoms of uremia as some had claimed. He advanced the theory that ammonium carbonate was the active cause, but this idea

was abandoned when others attempted its confirmation.

Owen Rees showed that anuria and a large urea-content in the blood of a patient had failed to induce the symptoms of uremia. Oppler held that it was unlikely that urea or any other urinary constituent should of itself act as a blood poison. He maintained that, through some interference with the function of excretion, the metabolism of the tissues all through the body was altered and their nutrition so affected as to cause the symptoms. This view is elaborated in its main contention by Bradford in the Goulstonian Lectures for 1898. To the details of this report, I shall beg leave to refer later at some length. I wish first however, to refer to the work of some others of the recent investigators, notably that of Hughes and Carter, published as the Boylston Prize Essay for 1893 in the American Journal of Medical Sciences for the following year, and also the essay of Herter as one of the contributions embraced in the Welch Festschrift at Johns Hopkins University in 1900. Of others I will make but passing mention.

Hughes and Carter, working at the University of Pennsylvania, started out to demonstrate the effect of the injection of blood-serum from uremic and other patients into animals and to compare with the effects obtained that following the similar injection of a blood-serum from a dog in which the renal arteries had been ligated. Blood-serum from a uremic patient was found to be pathogenic to dogs and fatal if in considerable doses. The same was observed in the use of the ascitic fluid during the uremic attack, but the fact is also interesting that, after the attack of uremia has passed, the ascitic fluid does not induce uremic symptoms. In all these experiments, vomiting and purging were regularly observed, and often coma and occasionally convulsions were seen. In the cases in which, in dogs,

the renal arteries were tied the symptoms reported were almost identical with those above described; convulsions, however, appeared but once. With the blood from such dogs, the serum induced symptoms much the same, though less pronounced. The serum from both the uremic patients and the dogs operated upon was subjected to the action of heat. Apparently the active principle was rendered inert by a temperature of 55-58. C., continued from 5 to 10 minutes. When placed in a dialyzer with distilled water, it was found that the water passing through the dialyzing membrane did not contain the active principle to any considerable degree, although the remaining fluid within the dialyzer remained distinctly pathogenic.

In concluding their reports, Hughes and Carter ask, "What then is the nature of this uremia-producing poison? That we have been dealing with one poison, present equally in uremic human blood, in dropsical effusions in uremia, and in dogs' blood in experimental uremia, is made evident by the perfect similarity of its action. That this poison cannot be one of the ordinarily recognized constituents of the urine, as has been hitherto believed, nor the sum total of all these urinary constituents is proven by the fact, which we have demonstrated, that the injection of these constituents or even of urine itself will not produce uremia. While such injections, if the amount used be inordinately large, will produce certain symptoms, yet these symptoms are not comparable in degree or kind with those produced by the injection of uremic serum, and they do not constitute the condition which we recognize in man as uremia. Thus we have to deal in uremia not with an intoxication due to a retention of urine or its constituents in the blood, but with a poisoning by a substance whose nature, or, indeed, whose very existence has not been recognized. A clinical proof of this fact is the possi-

bility of the existence of uremia while there is no demonstrable evidence of disease in the kidneys and normal amounts of normal urine are being secreted. While, however, the retention in the blood of substances ordinarily recognized as being excreted in the urine is not the cause of uremia, yet, after uremia has been produced, such retention may in all probability have a certain effect, aggravating the already existing condition or determining its variety. The poison then must be a special one circulating in the blood under conditions which are not governed wholly by the action of the kidneys as it is evidenced in the urine. As to its exact nature, the facts that we have ascertained positively are that its uremia-producing power is rendered abortive, or at least much lessened, by the moderate application of heat and that the active principle is not readily dialyzable."

It may be well to mention here the notable effort of Bouchard to discriminate between the seven poisons, or "urotoxins", which he claimed to have isolated from the urine of uremic patients. He defined them respectively as a diuretic, a narcotic, a sialagogue, a myotic, a temperature-reducing principle, and two convulsants. In general he supported the theory of retained urinary products as the source of uremic symptoms; but his detailed scheme of specific toxic constituents has not borne confirmation.

In the line of research upon the toxicity of urine, one of the most interesting points has been that upon the freezing-points of urine and of blood in uremic conditions. Richter and Roth noted the molecular concentration of the blood attending double nephrectomy, while removal of one kidney did not have this effect. (Compare Bradford's work.) Injury of the remaining kidney, after removal of the first, leads to excessive molecular concentration. Koranyi, also investigating the freezing-point, concluded

that the metabolism of the proteids produced the poisons of uremia. Lindemann reported that, in uremia, the freezing-point of blood is much depressed. Koeves and Roth-Schultz speak of molecular oliguria, with high freezing-point, in advanced nephritis. They lay down the rule that "the determination of the freezing-point of the urine and the quantity of the urine excreted in a day shows whether there is molecular oliguria and a determination of the freezing-point of the blood shows whether the kidneys are removing waste products properly." I note these conclusions for the bearing they have upon some of the evidence presented by others.

In the work of Bradford, to which I have referred, the main contention centres in the claim that the kidney "in some way influences the metabolism of the tissues, so that, if the quantity of kidney substance present is greatly reduced the proteid tissues and more especially the muscles break down and liberate urea. This view", he says, "is based upon the following experimental facts: (1) When the amount of kidney is reduced to one-quarter of the original total kidney-weight, the quantity of urea excreted in the urine is increased; (2) The amount of urea in the blood is greatly increased at a time when this increased excretion of urea is going on. (3) There is great emaciation, even if the appetite is maintained and the emaciation cannot be arrested by the most abundant diet. (4) If the appetite be completely lost and no food be taken, the amount of urea in the urine may remain at a level as high as that at which it stood when the normal animal was eating freely and maintaining its body-weight." He remarks that such facts would make one turn to the theory of an internal renal secretion, the disturbance of which might lead to the disorder of metabolism, but he interprets the results of some of his experiments as

distinctly against that hypothesis. Further than this he does not attempt to go in explaining just what is the medium for the renal influence upon tissue metabolism. Some of his experiments are upon the effects of partial nephrectomy, in which a part of one kidney and the whole of the other were removed; in others double nephrectomy or ligature of both ureters was performed; and finally he studied the effects of the intravenous injection of urea. Besides this experimental work, the observations upon a series of clinical cases are interpreted.

In the partial nephrectomy cases it was determined that when the total remaining kidney tissue equalled but one-third of the normal 6.7 grams per kilo of body-weight, the dog would live and enjoy good health; the operations were well borne and the recovery was almost invariable. With two-thirds or less of total kidney-weight thus removed, the urea in blood and urine was not materially increased in total amount but the amount of water was not materially increased in total amount but the amount of water used in excretion was vastly augmented. The hydruria was not, however, attended by any of the more pronounced effects accompanying the removal of three-quarters or more of the total kidney-weight. The latter were essentially fatal, and between the two-thirds and the three-quarters limits lay the transition from health to a condition terminating fatally. In no case, he insists, even where only a tenth of total kidney-weight remained intact, was there a failure to excrete urine with abundant quantities of urea. In cases with one-third remaining, the only symptom to be thought of in connection with uremia was a fall in body-temperature and occasionally a diarrhoea; no vomiting, convulsions, coma, nor dyspnoea. Occasionally an increase in urea-excretion was observed. In the fatal cases, with more than three-quar-

ters removed, the urea-content of the blood was greatly increased, even to twenty times the normal amount. Even more striking is the proportion of extractives found in the tissues, especially the muscles, where there is not only a large amount of urea but also a vast increase in those extractives, insoluble in absolute alcohol but soluble in rectified alcohol, belonging to the creatin class. This in the experiments upon double nephrectomy also is a point upon which the author lays great stress, as bearing out his idea that metabolism, especially in the muscles, is affected directly by a disturbance of the kidney's function. In the other experiments, where varying quantities of urea were injected intravenously, there occurred at times equally large amounts of urea in the blood itself, but the amount in the tissues of muscles, liver, and brain were invariably less, while the great increase of the other muscle-extractives was notably absent.

In speaking of complete nephrectomy, the author says that "dogs lived from three to five days. During the first two days there was little to note except lack of appetite. Muscular weakness, beginning on the second day, is progressive. The most marked feature, aside from weakness and wasting, is the decline in bodily temperature. The fall is continuous and progressive. There may be slight drowsiness, but in none of these experiments was there anything approaching coma. Vomiting and dyspnoea were not conspicuous and convulsions were not observed at all."

With ligature of both ureters there was essentially the same picture as that following complete nephrectomy. There is invariably a hydronephrosis induced, a condition peculiar in that it differs from that accompanying calculous obstruction in man, where complete or nearly complete suppression is the rule. The same condition exists here as with double

nephrectomy with regard to the increased proportion of extractives in the muscles, liver, and brain.

The clinical cases reported embrace five of complete suppression, and the duration of life, together with the urea-content of the blood, makes an interesting comparison when taken with the results obtained from the animal experiments. Three were cases of simple calculous suppression which lived 5, 6, and 9 days respectively and gave urea values of 0.277, 0.324, and 0.44 per cent. Another which lived 7 days showed a percentage of 0.36 and post mortem was found to present an endarteritis and thrombosis involving almost or quite the whole kidney cortex. The fifth was one in which the kidney itself presented no lesion, but an inflamed sacculus in the bladder was the apparent cause by purely reflex process. To me this is of striking interest, as suggesting the possibility that even relatively, if not indeed perfectly, healthy kidneys may reflexly become the cause of the most profound toxic effects. Of this possibility, I shall wish to speak at greater length in connection with some of Herter's experiments. Bradford is pleased to speak of these five cases as varying types of "latent uremia", the symptoms of which are essentially those described by Sir William Roberts as following ordinary obstructive suppression in each instance and are strikingly comparable to those presented by nephrectomized dogs. "There were consciousness, myosis, fall of temperature, occasional vomiting, and toward the end slight and rare twitchings of the voluntary muscles, and perhaps slight drowsiness, but no coma, convulsions, nor dyspnœa." The author's comment is, "I think we must conclude that complete suppression, of sudden origin and dependent upon obstruction of the ureters or upon certain acute lesions of the kidney causing entire cessation of the renal activities (such as the cases de-

scribed above) does not produce acute uremia."

"True acute uremia I have not been able to produce in the laboratory. . . . Acute suppression is rare in chronic Bright's disease and certainly acute and rapidly fatal uremia may occur in this form of the disease whilst the patient is passing quite considerable quantities of urea and urine."

In developing his theory of uremia Bradford asks, "Are the toxic substances involved the products of normal metabolism and toxic only by retention, or is there an abnormal metabolism? I think a consideration of the facts, experimental and clinical, that have been adduced will show that uremia cannot be explained on the hypothesis of the retention of either one or many or all of the urinary constituents, products derived from a normal metabolism. The sudden and complete suppression of the functions of kidney up to that time healthy produces a train of symptoms similar to those seen in obstructive suppression and, as already insisted on, a group of symptoms resembling only very distantly those of acute uremia. . . . Formerly it was thought that non-obstructive suppression certainly caused uremia. . . . The main conclusion that I hope to have established is that, both in the laboratory and in disease, the suppression of the activity of kidneys up to that time healthy fails to produce acute uremia. . . . The retention theory is, I venture to think, inadequate and it is to me probable that there is an abnormal product of a disordered metabolism. Experimental evidence points to the conclusion that the kidney in some way control the metabolism of the bodily tissues. The increased production of nitrogenous extractives in the tissues cannot be explained by mere retention."

The work of Herter on the relation of urea to the existence of uremia takes us

the consideration of its relations to physiological excretion as well. His reports, like those of Bradford, enter into minutest detail, as no others I have mentioned have done, of the urea-content of the blood. A considerable discrepancy seems to appear between what these two investigators consider normal to human blood. Herter gives as the limits 0.01 to 0.06 per cent. and says that values usually fall between 0.025 and 0.045 per cent. Bradford gives 0.015 to 0.02 per cent. as the average and Simon's "Clinical Diagnosis" gives approximately this lower value. This discrepancy is of some importance in the consideration of certain cases approaching the abnormal. The conditions under which Herter established his normal average, viz., "healthy young men and patients at Craig Colony", may account in a measure for this discrepancy.

In chronic conditions of the kidney, Herter's report includes many cases in which the urea-content in the blood ranges from three or four to twenty times the normal. Of these cases he says, "It is a striking fact that so large a proportion of cases of chronic nephritis show a distinctly excessive urea-content. Often it has been observed in persons who had had no acute exacerbation of nephritis. Probably in such cases it was a gradual development, appearing long after the first structural change. In such patients, the urea-content probably fluctuates before the stage is reached when the percentage is continuously or uniformly high." Herter's idea is that the accumulated urea may intermittently serve as its own diuretic.

He then proceeds to divide his cases of acute and chronic nephritis according to the urea-content in each, making three classes. In those below 0.1 per cent., there are ten cases observed and these include two which developed symptoms of uremia. In those with urea-content between 0.1 and 0.3 per cent., he finds

twenty-four cases and among these were ten undoubted cases of uremia and eight others which had symptoms like those of uremia but had other possible conditions to which these symptoms might be referred. In the class embracing those with urea-content above 0.3 per cent., there were seven cases, of which four were "well-developed and unequivocal forms of uremic intoxication." In no one were marked cerebral symptoms absent.

On the basis of these observations Herter concludes, "There can be no doubt that the observations included in these three groups justify the inference that unequivocal symptoms of uremia are very much more common in those cases of nephritis in which the urea-content of the blood is excessive than in those where it is either normal or only moderately increased. They also point to an important conclusion as regards the probability of a fatal issue. It can be stated that a patient is in grave danger of developing unequivocal symptoms of uremia (convulsions, dyspnoea, vomiting, diarrhoea) whenever the urea-content of the blood increases beyond 0.2 per cent. and that a fatal issue is almost certain to occur within a few weeks in a patient in whom the urea-content of the blood amounts to more than 0.3 per cent. . . . But although it is a fact that the liability to uremic symptoms increases with the augmentation in the urea-content in the blood, this is far from being proof that the excess of urea is in reality the effective cause of these symptoms. To prove this it would be necessary to show that the blood of our uremic patients contains no other bodies capable of giving rise to the intoxication in question and such a demonstration is not practicable. . . . Different types of uremia exist and we must clearly distinguish between these in any discussion of the role played by pathological accumulations of urea.

The uremia that occurs in the course of acute infectious diseases in persons with previously normal or presumably normal kidneys must not be confounded with those examples of uremic intoxication that develop in the course of a chronic nephritis." Here he believes we see the gradual development of the renal insufficiency for urea, reaching a high grade and inducing uremic symptoms with very little elevation of temperature. Such cases he says "we may safely assume" are due to retained urinary constituents. Of disordered metabolism and its products, our ideas are he thinks "unsupported by substantial evidence". Finally with reference to the effect of urea upon dogs, he concludes. in brief that "these considerations render it in the highest degree probable that urea plays a part, and a leading part, in bringing on uremic symptoms in certain patients with chronic nephritis".

In Herter's consideration of the physiological relations of urea, an interesting comparison is drawn between what we may call the elasticity of the kidney's function in the higher animals and in the frog, in which the lower type of development of the organ persists. He concludes that the functional effectiveness of the mammalian kidney is at least twelve times that of the Wolffian body of the frog, weight for weight. In experiments with animals on the effects of urea injected in solutions of varying strength and quantity it was determined that in all forms of kidney it was possible to find a strength of solution and rate of injection above or below which diuresis was not so easily established nor so well maintained. In the normal animal, however, the limits for this action were quite elastic. It was shown that in kidneys previously subjected to the action of cantharidin the nephritis induced led to a peculiar effect upon the limits of renal sufficiency. A strength and rate of in-

jection that in health would have increased excretion actually decreased it or practically caused suppression. If, then, a weaker solution were first injected and more slowly, the kidney could, for a time, be nursed back almost to its normal maximum efficiency. Although the author does not dwell at length upon this point, it seems to me to be of the utmost importance in any attempt to understand the whole picture of the uremic process. This *stammering*, as we may call it (This term is applied by Paget to a reflex disturbance at the bladder neck that may be considered remotely analogous) seems to me to express the state of a kidney in which, under violent reflex or direct irritation, it refuses to function. What happens afterward may be conceived of as a reverberation of progressively increasing ill-effects between the kidney in this state of hesitancy and the tissues, whose disordered metabolism becomes thus alternately cause and effect. I do not say that this leads us to the ultimate cause of uremia, for that, as I have indicated, may be manifold in character; but, granting that the reflex mechanism involved in the renal activity can be so disturbed that for instance the blood-supply can practically be cut off or the secreting epithelium made unable to regenerate by virtue of some form of depression, do we not see that practically any kidney is potentially in a condition to become a medium for the induction of uremia? Does not this conception help to harmonize those cases of uremia which we know as puerperal eclampsia and in which there may be no demonstrable increase in the urea-content of the blood with the more common type as it accompanies the various forms of Bright's disease? It is only necessary to admit, as most investigators seem ready to do, that urea is not at least the only poison which can induce this train of symptoms to have completed a conception more satisfying than most

such theories, taken by themselves, have become in the light of all the facts.

Let me refer again to Herter's experiments more in particular. In the case of dogs injected by the femoral vein with solutions of urea, the maximum secretion and one that could be maintained for hours without apparent injury was with a 4 per cent. solution infused at the rate of 5 c. c. per minute. This would seem to be the maximum normal capacity (about twenty times the normal demands made upon the animal's kidney) for reasonably prolonged periods. That the organ should become exhausted in time under this strain of work is natural to expect and was indeed indicated by the condition reported histologically. There were oedematous and granular appearances in many cells, but an unaltered nucleus indicated the possibility of regeneration. Very different was it when, with the rapid injection of more concentrated solutions, the evidence was that of an actually damaged epithelium, giving such an appearance as to show a loss of structure in the cytoplasm and even a fragmentation of the cells in certain tubules.

Where the avenues of excretion are cut off in dogs, death will ordinarily not supervene until nearly 1. per cent. of the body-weight of urea is infused, whether introduced slowly or rapidly; "where urea is infused so rapidly as to cause death in one to two hours, it makes little difference in the fatal dose whether the kidneys be permitted to act or not" (Herter). Would it here be unwarranted to suppose that, under the toxic effect of the urea, the kidney-cells individually as well as the vascular structures of the organ collectively underwent a spasmodic reaction, in the latter vaso-motor, in the former a trophic disturbance? The relation of the one of these processes to the other it need hardly be necessary to consider for our present purposes. In the application of the general idea which I

have suggested, may we not conceive that this spasmodic, revulsive action of the kidney, rarely as a whole in health, more frequently in its relatively healthy portions left functioning after previous disease, follows when, as I have indicated, it is confronted with a direct irritation entering by way of its blood-supply or borne to it reflexly with its vaso-motor or trophic impulses.

Herter calls attention in detail to some fourteen cases of fatal acute lobar pneumonia in which the end presented the symptoms of an acute uremia and an observation of the blood revealed the presence of from five to fifty times the normal amount of urea in circulation. Granting that the urea in these cases was an aggravation of the trouble, it seems reasonable that the beginning of the end was when the kidney suddenly refused to do what the storm of specific poison thrown upon it made reflexly impossible. When we understand this condition, our treatment will aim at exactly what I believe we accomplish by saline infusion in such cases at present, viz., nursing back, or coaxing, the kidney to do what it refuses to be forced to do.

I realize that such a conception has little definite evidence experimentally to support it, but it seems to me to present a portion at least, not previously insisted upon, of any hypothesis that shall formulate, from clinical and experimental observations, a true picture of the condition and process now so indefinitely understood as uremia.

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Health In Islands.—It has been frequently observed that the inhabitants of islands and small peninsulas attain longer life than those of continents. The Barbadoes, Greece, Madeira and the Shetlands are quoted as illustrations of the truth of this statement.—(*Medical News.*)

RECURRING TONSILLITIS.*

BY JNO. A. DONOVAN, M. D.,
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In selecting this for my subject, I am led by the fact demonstrated by my daily practice that, though for the past two or three years the tonsils have been most carefully studied and discussed by laryngologists, it is evident the general practitioner has given it no attention. I find, with very few exceptions, that unless the tonsil is decidedly hypertrophied it has been considered normal. I shall confine my remarks to what I consider the most practical points, doing so in the briefest manner possible, that more interest may be taken in this class of suffering patients.

We have the faecal, pharyngeal, lingual and eustachian or tubal tonsils. I shall consider only the faecal. They may be tersely described as almond-shaped bodies of lymphoid tissue or conglomeration of Peyer's patches. The depressions number from 10 to 20 and constitute the crypts or lacunae of the tonsils; normal size is about one-half inch long by one-third inch thick. Weight, 2 drachms. They are situated between the anterior and posterior pillars of the fauces. By drawing the anterior pillar forward, outward and slightly downward, the plica triangularis will be seen extending from its edge downward and backward to the tonsil. Above this is a triangular space, the supratonsilar fossa. It extends inward, upward and outward into the soft palate, downward and anteriorly between the tonsil and the plica triangularis, sending a prolongation downward behind the tonsil. Note what an ideal cavity for the retention of culture media, with resulting formation of peritonsillar abscess.

External to the tonsils is a strong fibrous membrane, and outside of this the superior constrictor muscle. The large vessels lie immediately external to this

and about 15 to 20 mm. behind the posterior edge.

The location from outside may be given as a point midway between the angle jaw and anterior border of the sterno mastoid muscle and the tip of the hyoid bone.

Arterial supply from facial through its tonsillar and palatine branches, from the lingual and the ascending pharyngeal.

Nerves—Glossa pharyngeal, tri-facial and sympathetic.

Lymphatics—Superficial and deep, passing into upper carotid cervical glands.

A clear idea of these anatomical relations is essential to comprehend the clinical significance of symptoms produced by pathological conditions.

Function—This has been discussed by many authors, with entirely different conclusions. I quote the conclusion of J. Uhlman, *Medical News*, Jan. 26, '01. "The normal tonsil has a physiological function, probably protective to the organism.

(2) That being in itself often diseased, the physiological function of the tonsil is impaired, and that instead of being protective, it is the nidus for the growth and distribution of pathogenic organisms and their poisonous products in the system.

(3) That many grave and fatal general infections have their origin in the tonsils.

(4) That if the exanthemata, particularly scarlatina are of bacterial origin, the tonsil acts in part as a port of entry. (5) That acute articular rheumatism, and the diseases often associated with it, endocarditis and chorea, in the great majority of cases, are due to the action of attenuated bacteria, their toxins, or both, entering the system through the diseased tonsil.

(6) That in those rare cases of typhoid fever in which no intestinal lesions can be demonstrated, the similarity of the tonsillar tissue and Peyer's patches suggests the tonsil as the port of entry of Eberth's bacillus. (7) That

scrofulosis is often associated with diseased tonsillar tissue, and that the tubercle bacilli often enter the system via the tonsils. (8) That the tonsil is too little examined at autopsy, and much light might be shed on fevers of uncertain origin by its bacteriologic and histologic examination."

Pathological tonsils may be classified as interstitial or sclerotic, resulting from slow or recurring inflammation. The lymphoid—a simple hypertrophy of otherwise normal structure in early life, but assuming other types as age advances. Lacunar or cryptic or honeycomb walls of the lacunae undergo change. A desquamation and accumulation of dead cells may distend the lumen with plugs. These may become horny, fatty, caseous or calcified. It is with this variety we have the repeated sore throat, sharp pains, expulsion of cheesy plugs with the pungent odor of putrefaction, followed by relief till they fill up again.

Any abnormal condition of these lacunae or hypertrophy of tonsil, or adhesion of tonsil with the pillars may form an ideal trap for specks of food, exfoliated epithelium, glandular secretions, etc. These with the germs always present may produce the most serious results.

The most prevalent mistake made is that the tonsil must be enlarged to require attention, while any of the above conditions may produce the most annoying disturbances entirely independent of the size of the tonsil. Pynchon has called attention to the many annoying symptoms caused by what he names the submerged tonsil. The symptoms indicative of diseased tonsils are frequently:—cough, especially on retiring (this may often be produced by putting the probe point into a diseased crypt), uncomfortable deglutition, impaired hearing, smell and taste, subjective sensations in the throat, pains, glandular enlargement, voice changed and easily exhausted, otitis, neu-

ralgias, etc. The small obstructed lacunae are more trouble usually than those with open crypts.

The sequelae, besides the complications following sore throat, tonsillar abscess, etc., with which you are all familiar, are: enlarged and suppurative glands, septic infection, septicæmia, endocarditis (unfortunately, is not extremely rare), pneumonia, typhoid and tuberculosis, undoubtedly from lodgement of specific infective material. Several cases of septic phlebitis have been known to follow. I had one case of pneumonia follow an acute peritonsilar abscess, and with one patient who had retention of pus for some time in an atrophied tonsil, in spite of radical treatment, her cervical glands became enlarged, goitre followed, with more glandular envelopment and death. In these patients I felt positive that the tonsils were the direct cause of infection.

Treatment: As you will most likely first see these patients in the inflammatory or suppurative stage, immediate action is necessary. A few words on differentiation are essential. There may exist a genuine tonsillar abscess; swelling, confined to the tonsil and mouth; it is freely opened with little pain. Abscess in anterior pillar usually results from a tooth or foreign body; swelling anterior to tonsil; mouth may be opened, but painful. Peritonsillar abscess or a suprataonsillar phlegmon is the most common; general swelling, extreme pain and mouth opened with extreme difficulty.

In all cases elimination is indicated; for this calomel and phosphate of soda are preferable. Benzoate of soda, salicylates, guaiacol, etc., have their special indications. Local application of 40 per cent. silver nitrate or 50 per cent. guaiacal solution will frequently abort.

When suppuration has taken place, under no conditions should you allow it to remain, as the complications resulting

from confined pus in a gland, so intimately connected with the lymphatics, are too serious to ever be overlooked, besides its liability to rupture in the night, causing suffocation; or it may burrow downward or produce erosion of the large arteries with fatal results. In peritonsillar abscess, the incision should be made in the supratonsillar fossa, at the same time seeing that the mouth of this space is freely open. A special shaped knife is necessary for this. N. R. Pierce, of Chicago, has devised a special knife and dissector to work in this space. I use a sickle-shaped knife and split the tonsil downward. In this condition many still practice opening through the anterior pillar, or into the soft palate, preferably one-fourth inch above the palatine arch and at right angles to it with a straight knife. By this method of incision the edges will be kept apart. Should this method be found necessary, it should still be followed by free opening in the supratonsillar fossa; results are more satisfactory and recurrence not probable. Myles' tonsil punch will often be found of value for this.

In many cases of recurring tonsillitis, during the intermission they are so contracted as to be difficult to remove; it is therefore, frequently advisable to encourage an acute attack and remove during height of swelling. Thus you remove much more tissue, while the danger of infection is, in my opinion, no greater than by simply opening the tonsil. I have performed tonsillotomy, but in getting pus cut out the superior part of the remaining portion with Myles' punch forceps, allowing pus to freely escape from a very open mouth. This practically eliminates chances for recurrence.

There is still much discussion as to whether the tonsillotomy or tonsillectomy should be done, though the majority adhere to the former (partial removal). J. H. Coulter gives the following reasons for tonsillectomy:

"(1) It gives a cosmetically perfect throat, free from liability to absorb toxines, etc.

"(2) Liberates and gives perfect action to the pillars.

"(3) Removes mechanical obstruction to sound waves.

"(4) Relieves reflex disturbances.

"(5) Leaves perfectly smooth surfaces.

"(6) If pillars are previously hypertrophied they become normal."

In the cryptic variety, each lacuna should be opened and cauterized with electro-cautery preferably, through guaiacol, silver, etc., may be used. In many patients this method of treatment must be followed. It requires many sittings to complete it, as but few are treated at a time. The more I treat in this manner, the more convinced I have become that if the patient would consent, the whole tonsil can be removed with as little pain or less than the treating of a single crypt. The trouble in removing is to cut deep enough to get at the bottom of each crypt in removing it. Sometimes the removal of the upper portion with a punch forceps will suffice, though I have within the past week been obliged to remove the remainder in two patients because the above operation had failed to cure.

The otherwise admirable Matthew's tonsillotome when used alone on these contracted tonsils is useless. A tonsillotome may be used if all adhesions are first divided; the tonsil then drawn well out with a specially devised tonsil forcep, and cut off at its base. There are many ways advocated for their removal. Cautery puncture or dissection with cautery requires repeated sittings. In some I use the snare; when it can be used, the tonsil snare is one of the safest procedures. Some I cut out piecemeal with punch forceps or dissect with curved scissors. In every case all adhesions should be first carefully removed, as cutting the anterior

pillar is very painful and liability to hemorrhage much increased. By the local application of 10 per cent. cocaine combined with injection of Schleich's solution, the operation is not painful. In children, general anaesthesia, ether being preferable, will permit of cleaning the naso-pharynx at the same time. Of late, under general anaesthesia, using a mouth gag, apply the tonsillotome by a sense of touch only, combined with external pressure; thus am able to operate with much greater rapidity, requiring the minimum time and amount of the anaesthetic. The special plan to be adopted, must be decided after a careful study of history, physical conditions and general considerations in each case. All things being equal, immediate removal of the greater portion if not the entire gland is preferable. In adults, I favor complete removal in most cases.

Butte, Montana.

The Main Traveled Route.—To the Northwest it is the Chicago, Milwaukee & St. Paul Railway. It is the best road, has best train equipment, and best sleeping car and dining car service. It is the route of the United States Government Fast Mail trains and of the famous Pioneer Limited trains. If you go to the Twin Cities of Minnesota or beyond go via "The St. Paul Road" and ride on the best train in the world.

All ticket agents sell tickets via Chicago, Milwaukee & St. Paul Ry. For descriptive literature address F. A. Miller, General Passenger Agent, Chicago.

Per Cent. of Heredity In Oxaluria.—At the Congress of Hydrology, Climatology, and Geology, Dr. Dedet reported that out of 500 patients he had found 112 who, on admittance, during or at the end of their illness, exhibited oxaluria. In 40 per cent. of these cases there was heredity.—(*Medical Bulletin.*)

MEDICAL CONSIDERATIONS.

1. Art is long, time fleeting; therefore, brevity is the cry of our confreres, for "the bird of time hath but a little way to fly, and lo! The bird is on the wing".

2. Success does not always imply wealth, nor does it even imply a lucrative and influential practice.

3. The oath of Hippocrates, so expressive of high medical morality or ethics, is said to be "The most memorable of human documents".

4. Never before in the world's history since Plato gave us his Dialogues of Eryximachus, the son of Acumenus, has medicine occupied such an exalted standing.

5. Are not the daughters of Eve, in some respects, to be likened unto *verbs*—as regular, irregular and defective? And as for that *one* of those who are crying for reforms and assuming to be the "new woman", should that *one* be designated "it" and "its" followers as "it's"? For there is evidence of "neuter gender".

6. Co-education is losing the support of those who have encouraged it and watched its progress. The masculine woman is not marketable nor attractive.

7. The sight of five or six young women, attenuated in form, writing on their "finals" in medicine, is a sad reminder to me of their misguided ambition and of the fact that fools and their friends still flourish.

8. Are not the gifts of the gods, Asepsis, Sanitation and Anesthesia, equaled only by that of *fire*, which the Titan stole from the heavens?

9. When one possessed of such remarkable gifts as was Virchow can fully realize his strength and adaptability for another duty in life's work, then, and only then, is he a safe guide in medicine. It is better, since Medicine is a jealous mistress, to fully relinquish it if other interests are more inviting.

10. Nationalism and Sectarianism in

medicine are growing to be less countenanced by our best thinkers. The solidarity of our profession is becoming a recognized condition and is encouraged by those who love their profession for its own sake.

11. If we, as members of the honorable profession of medicine, were as true to each other in regard to our schedule of fees as are those who are of the clergy and of the profession of law, we would certainly free ourselves from much self-condemnation, and thereby avoid public condemnation. Tradesmen, in regard to schedules of fees, are furnishing us with easily read instructions.

12. The bestowal of specialist certificates by some cheap universities, whose craze for notoriety and shekels is equaled only by their ignorance of the wants of the profession and their disregard for its responsibility, is the greatest injury to which our profession is being subjected. State legislation and state medical boards should denounce this evil with no uncertain words.

13. State, or old established and well endowed universities, should control medical studies and alone grant the degree of Doctor of Medicine. And joint-stock medical concerns, conducting other studies, such as pharmacy, etc., granting cheap *doctorates* in each, should be well ventilated, in fact, denounced. The dear people, the *thinking people*, are respecting such schools equally with commercial colleges, expecting something better for medicine. And are they to blame?

14. The popular delusion which will-o'-the-wisp hunters hold so closely to their hearts—such delusions (the promulgations of crazed and scheming persons) as are called Osteopathy, Spiritualism, Christian Science, Vitapathy, etc.,—should be tolerated, since such things keep from asylums and mad houses those who would otherwise become burdens to the state.

15. No one can be a specialist—that is, a safe one—who has not had several years of experience in active general practice and has chosen his specialty not for its special revenue, but for his thorough love and his especial gifts and preparation for it.

16. If the New York University obtained no names of physicians for its Temple of Fame, it is indeed a sad reflection on the estimation of the worth of men—such as Ephriam McDowell, Marion Sims (whose statue is in Bryant park), Mott, Morton, Rush, Walter Reed, Carroll and Agramonte, and others equally memorable, not forgetful of Jenner, Roentgen, Virchow and Pasteur.

17. That quackery flourishes and is encouraged is due to cheap medical journalism and to those of the profession whose interest in it is purely of a financial character; and an ordinary review of the work of two or three medical journals—each claiming the largest circulation—will prove these statements. It is evident to the ordinary reader that subscribers thereto are looking for “sure cures” and the editors and a few well-paid contributors are directing the “innocents” to “original packages”, which are being dished up around the corner by a concern in which their capital is to a great extent invested. That the poor, misguided M. D.’s are easy victims is in evidence, for the drugs made use of for these patients, although they have a place in the works on medicine, have no especial merits named for them. The “Pharmaceutical I X L Co.”, however, has found them—? ? ? !!!

18. “I am a part of all that I have met” is a wise saying, equivalent to “A man is known by the company he keeps” and “Evil communications,” etc. This being the case, will not a few medical journals (I say a few, but I could name three-fourths of those published as objectionable) which vie with Police Ga-

zettes and Journals in unnecessary "smut" have a tendency to lower one's estimation of the profession, his usefulness and his moral character? Such journals, and those which advertise "sure cures" and other non-ethical preparations, should be ostracized by the American Medical Association, and by the state and the provincial associations. For the readers of such journals are really fakirs and the encouragers of fakirs edit such journals.

19. If those who, as pork packers, brewers, speculators, etc., have rolled up millions of shekels, thereby causing broken hearts, disgraced families and innumerable woes, wish to make atonement and to honor (?) the men who made the wealth, would endow a chair in the State University or endow a college in affiliation with the State University after the manner of those connected with Oxford and with Cambridge Universities, would not the state be better benefitted than if a "John Humphrey Smith, Sr." University were to be established? Or would it not be as well to endow a chair for Medical Legislation and Ethics, for which the "father of the American Medical Association", N. S. Davis, M. D., LL. D., was so many years champion and earnest worker? Considering that doctors are rapidly becoming the peers of Kings and Emperors and Presidents, and that more than twenty baronets, are not better legislation, higher matriculation requirements in medicine, etc., and *Ethics* the demands of the hour, to make this century more glorious than the past?

Leprosy Not Always Hereditary In Girls.—An exchange says: "Incidentally to the discussion now in progress as to the advisability of lepers marrying, the very interesting fact is brought out that, according to Dr. W. O. Smith, who has for years been the president of the board of health of Hawaii, during the last thirty years less than one per cent. of the girls born of leprous parents showed any taint after birth."

Give Art Its Mystery.

Never let a layman into the knack of it;
Mr. Lay already thinks he has abundant wit.

If you give him quinine, call it by some sound
That his vocal organs cannot twist around.

Or, if it is Epsom you are giving to
A patient, look out that he has not got onto you.
Keep your business silent; if you cure him now,
Make it all a mystery, do not tell him how!

We have seen good doctors keep no doors or blinds
On the store of precious things in their wondrous
minds;

They would cast their jewels at the feet of swine,
And their high unselfishness seemed almost divine.

The layman gets a notion, and this is how he
blows:

"Doc Brown will give you quinine—I guess it's all
he knows—

"Doc Jones charged me a dollar for writin' Iodine;

"Next time I'll go and buy it. He must think I
am green.

"Old Doctor Smith will dope you with morphine
till you're numb,

"And Doctor Clark just gives you plain mercury,
by gum!

"I think that our law-makers should make these
doctors know

"There ain't no kind of reason in usin' pizen so.

"It almost makes me shiver. Doc West, so people
say,

"Gave nitroglycerine to Sam the night he passed
away.

"I was readin' in the paper one day, not long
ago,

"And I saw an advertisement of a certain Dr.
Blow.

"He never gives a mineral, and don't use mer-
curee

"Or any kind o' pizen stuff; he is the man for me."

Oh! Yes! There are good doctors
With no doors or blinds

On the store of precious things
In their wondrous minds.

They are casting jewels

To the swine that rend;

They are all forgetful

Of a selfish end.

But if they would sometime

Make the swine more pure,

They should save their jewels

For their connoisseur.

C. E. BOYNTON, M. D.
Los Banos, Cal.

Blindness In France.—In a report to the Ophthalmological Society, Dr. Trouseau states that the number of blind in France reaches 31,966; a proportion of 8 in 10,000. This proposition is considerably in excess of that in Denmark, Switzerland, Austria, and above all, Holland; where it is exactly 4.46 in 10,000.—(*Medical News.*)

DETROIT MEDICAL JOURNAL

A MONTHLY EPITOME OF
PRACTICE AND THERAPEUTICS

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NOTE.—We do not assume responsibility for the opinions of contributors.

The management cannot undertake to return rejected manuscript unless full postage for the purpose is submitted with the contribution.

Address all communications to 270 Woodward Avenue, Detroit, Michigan, U. S. A.

Vol. 2. DETROIT, MICHIGAN, JANUARY, 1903. No. 10

A SUGARED PILL.

Ever since competition in the drug business assumed its present keenness, numerous methods have been devised by dealers to secure the patronage of the physician. Sometimes it is gained by a special discount, sometimes by the gift of instruments, sometimes in other ways that walk on the verge of non-ethics. The co-operative plan has been tried with varying success, but now a new idea in this line is offered to the profession. For ingenuity it is commendable, but ethically it falls short of strict requirements.

In brief, the plan is as follows: The company sells to the physician one hundred shares of ten dollars each of six per cent. cumulative preferred capital stock. It may be paid up at once in cash by the purchaser, or at any subsequent time, at his option. If the purchaser wishes to have the company carry his stock for him, he insures his life for \$1,000, and assigns the policy, to be written on the endowment plan, to the company, which pays the premium out of the dividend of six per cent. Any balance of the dividend is paid to the stockholder. When the insurance matures, the stockholder, or his estate (in the event of his death) has the option of accepting the entire proceeds of the policy or to pay the proceeds as sub-

scription for the stock; in the latter case any amount of the policy, over and above the amount of principal remaining unpaid on the stock, shall go to the stockholder or his estate. Incidentally, the stockholder gives to the managers his proxy irrevocable until he has in some way paid for his stock. The proxy is incorporated in the agreement.

Now for the physician's duty. He agrees that he will in his practice prescribe "as far as he can consistently, and to a reasonable extent, as provided by the by-laws, from the regular formulas" of the company. (The by-laws fix the amount at \$2.00 a day, four 50 cent prescriptions, and a verbal agreement is made that the physician shall be compensated pro rata for any increase over this.)

Close track is kept of each physician and each druggist. The original package of the company's preparations, which are to be prescribed by the stockholders bear only the trade-mark of the company on the outside. With each package there is an unattached label, bearing the name of the contents, with space for the name of the druggist, the physician and the date. When a druggist fills a physician's prescription for an original package he fills in his own name, the name of the prescribing physician and the date, and forwards the slip to the company. For this he receives four cents, and the company is furnished with a check on its business.

The agreement which the prospective stockholder is asked to sign specifies that only pure drugs are to be used in the preparations of the company, and that they shall be accurately prepared in the manner shown by the formulas furnished to physicians; also that every holder of preferred or common stock shall have the right to verify the quality of the prescriptions at any time. (No provision is made for an unfavorable finding in this regard.)

forming a basis for withdrawal from the contract. The agreement is loosely worded and elastic.)

As a business prospect for the holders of common stock, the plan presents almost unlimited possibilities. The company is to have an elastic charter, running to \$5,000,000. At first, \$400,000 in preferred stock will be issued to physicians, and if it is found necessary more of the same kind of stock will be issued. A million in common stock will form the first issue in that class. It is well known that proprietaries in large quantities can be bought very cheaply and on favorable terms, so practically all the company would need in money would be the establishment of a line of credit. If enough physicians are secured to make the plan feasible, no traveling men will be needed, nor will the company be at any expense for advertising. The physicians will create a demand for the company's goods, and druggists must stock them. One of the arguments used by the company's representatives is along this very line, these statements being made to show how cheaply the company can operate. An office force and one or two shipping clerks would be about all the company would need to carry on its business.

The doctor is the essential factor in the business. Without his prescriptions, the company would be on the same footing as regards competition and expenses as any other drug house. The doctor is the immediate means of income, and he gets next to nothing for his work. Suppose the average physician to be forty-five years of age; the premium on a twenty-year endowment policy would take practically all his dividends, and he would have to "die to win," so he really loses the chief attractive feature of endowment insurance. His entire income in any form would be sixty dollars a year, as provided in the basis of dividend for the preferred stock. The plan is unethical in the ex-

treme; it makes the prescription of proprietaries a sine qua non; it ties the physician hand and foot to one company, with which he has not an equitable business agreement. And he works for the benefit of the holders of the common stock. Most physicians are used to working for the benefit of others, without much material gain; but in this case it appears that the physician is to take medicine, thinly disguised with sugar, for another. And medicine by proxy is always distasteful to the taker.

THE PERSISTENCE OF THE MIDWIFE.

In the matter of securing legislation along medical lines, the ultimate object of which is the benefit of suffering humanity, the profession might well turn its attention to securing the passage of laws which should do away with the old-fashioned, untrained, ignorant women who from time out of mind have been assisting children into the world, and out of it, sometimes with the mother into the bargain. The horrors of child-bed without any sort of pretense at cleanliness are not unfamiliar to any physician whose practice carries him among the families of the poor—families who call him in to undo or to repair the work of the midwife, and then, because he is too late, return with increased devotion to her at the next confinement, providing that she has left a mother capable of bearing children again. How many cases of puerperal fever, how many children blinded with gonorrhœa, how many helpless mothers permitted to bleed to death, have been the result of the ministrations of ignorant women, will probably never be known.

The profession owes it to its members, and to humanity, to take some steps by which the terribly high mortality which results from the attendance of the midwife may be lessened. Dr. Thomas Scott Hening, of Winterpock, Va., in a recent number of the *Virginia Medical Semi-*

Monthly, reports a number of particularly sad cases which have come under his observation, in which the life of the child, or the mother, or both, have paid the penalty of mid-wife attendance. The condition of things which he describes in the south is no worse than it is further north, for the mid-wife is like the poor—always with us. Her chief requisites for practice are that she shall be old, and that she shall do her work cheap. Her trade must be plied among the ignorant and the lowly, for no other person will employ her. She is unclean, unlettered, and without shame. She bases her practice on tradition, and her power among her clients is almost unlimited. Every old woman in the neighborhood feels it her duty to assist her and the wonder is that children are born to live at all, with all of them in attendance.

Let this matter be agitated. Where there are laws already, let them be enforced, so that they shall mean something. Make the penalty heavier, where one already exists. Where there are no laws, let the profession bend its energies to securing the passage of suitable legislation.

ANTI-CONSUMPTION WORK IN PENNSYLVANIA.

Like many others of the states in the Union, Pennsylvania is taking a lively interest in the problem of how best to combat the ravages of consumption. The establishment of the free hospital at White Haven has thoroughly demonstrated the need of further hospital facilities for the care of needy consumptives, since the waiting list at that institution has been nearly double the capacity of the hospital. The medical society of the state reports that about 8,000 deaths from consumption occur annually in Pennsylvania and that there are at all times at least 10,000 people who are suffering from the disease.

The Lackawanna County Medical Society has recently started an agitation for equipment with which the county may make a successful fight against the spread of tuberculosis and if the efforts of the physicians in that portion of the state prove to be successful, the work will undoubtedly spread further. The Lackawanna plan includes the establishment of a municipal laboratory, the registration of tuberculosis by attending physicians, a sanitorium for the treatment of cases, and especially the dissemination of knowledge by means of circulars and addresses to the people. The success of this plan has already been demonstrated in the national metropolis, where the death rate from consumption has fallen nearly 35 per cent. since the introduction of educational measures in the city.

There is little doubt that there is need for instruction to the public in regard to the possibility of spreading the disease, through carelessness on the part of the patient or his family. The establishment of a municipal laboratory is to be commended, and the sanitorium, in view of the statistics furnished, is a necessity. With these things, and the co-operation of the medical profession, which appears to be already assured, owing to the interest which Pennsylvania physicians as a body are taking in the matter, the results should be certain.

EDITORIAL NOTE

An interesting explanation for the large number of crimes against women which are annually committed by negroes, particularly in the south, is furnished in a editorial in a recent number of the *Charlotte Medical Journal*. The keynote of the comment is this: "The cause that keeps the white man ever on the

alert, that frightens and terrorizes the white women and little girls, that has made farms vacant and sent the owners to cities, is the periodical uncontrollable sexual madness of individuals born of a race whose biologic animal potentialities can no more be changed by education and environment than can their woolly hair be made straight by careful and constant combing."

The writer then goes on: "These physiologic laws are immutable; they cannot be governed by moralists nor suppressed by ethical culture. The want of training along the lines of anthropology and physiology that exists among the class which believes that social recognition and ethical culture will change certain centers in the brain of the African as well as reduce his physiologic activity, is an humiliating evidence of their ignorance of anthropologic facts." It is pointed out that there is always an increase in crime against property among the negroes in the winter, and the statement is made that crimes against women are most frequent in May and June, and least so in November and December. It is at least an interesting theory, and, from the standpoint of a very large number of southerners, an absolutely tenable one.

Physicians who do even a cursory reading of medical periodicals must have seen an article on "Septicemia and the Curette", which has enjoyed an unprecedented publication in the medical journals of the country for several months past. A recent issue of the *St. Louis Clinique*, which contains the article in question, has a somewhat naive comment to make in its columns. It says:

"A paper in this issue of the *Clinique* on 'Septicemia and the Curette' contains some valuable suggestions, but fails to accurately state what alkaline solution is intended for use in this way. The editor would suggest the employment of a wash

made by dissolving eight of Seiler's alkaline and antiseptic tablets in a pint of warm water as a proper "alkaline" solution for the purpose. The author of the paper would probably refer inquirers to some proprietary preparation, the paper probably being designed as a means of advertising something of that character."

Immediately upon reading the foregoing, one asks the question, "What on earth did you want to publish it for? If you knew or suspected that it was written largely for the purpose of advertising some proprietary preparation, why did you give it space?" The editor has evidently been caught napping, as all of us are likely to be sometimes. If he didn't think the article in question was really calculated to interest and instruct his readers, he ought not to have used it at all.

A new departure has been undertaken by the publishers of *The Chicago Clinic and Pure Water Journal*, published in Chicago by Dr. George Thomas Palmer. It consists of a free bureau of information as to the value of American sanitaria and health resorts, with descriptions of mineral springs, if any, climatic advantages and disadvantages, hotel rates and so forth. The journal undertakes to forward to any inquiring physician such data as its management has at hand in regard to the numerous health resorts of the country without charge. The paucity of good and reliable information on these matters, and the large number of resorts which claim special advantages for patients furnish a large field for the work of the bureau, and we trust that it may be successful.

Oxford recently conferred the honorary degree of Doctor of Science on Dr. Charles S. Minot, professor of histology and embryology in the Harvard Medical School.

NEW INSTRUMENTS & DEVICES

Mention of new instruments and devices in this department is entirely complimentary and articles illustrated are judged on their merits.

We invite manufacturers and physicians to send us matter suitable for publication under this head. A description of the device and an electrotype or half-tone with a base not greater than two and five-eighths inches should be sent.

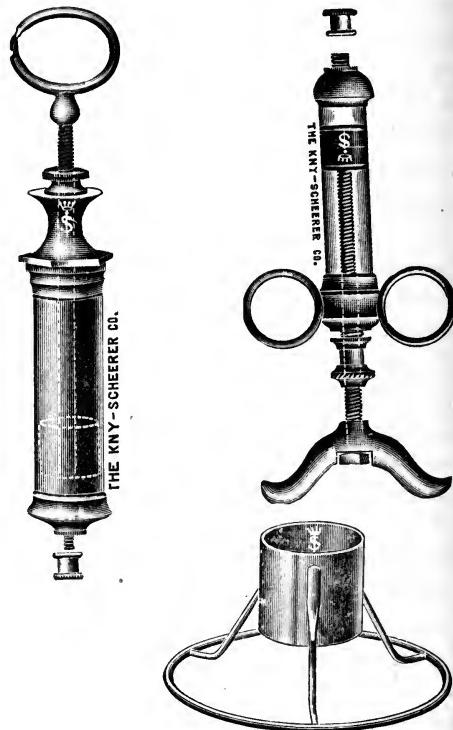
Always mention the price of the article in question.

The management cannot undertake to return cuts unless postage for same accompanies the letter with which they are sent.

PARAFFIN INJECTION SYRINGE.

The value of paraffin injections in plastic operations for restoring and benefitting facial deformities has been recognized by the profession almost ever since Gersuny, of Vienna, first introduced his method of injection. Recent literature is full of comment on the operation and the necessary paraphernalia, and among the late contributions on the subject may be mentioned the following: *Wiener Klinische Wochenschrift*, June 20, 1901; *American Medicine*, December 7, 1901; *Journal of the American Medical Association*, April 19, 1902; *Deutsche Medizin. Wochenschrift*, Dr. Eckstein, August 7, 1902; *St. Paul Medical Journal*, September, 1902; *Medical Review of Reviews*, September 25, 1902; *Medical News*, November 29, 1902. The necessity for absolute aseptic conditions in cosmetic operations is not to be doubted, and the need of keeping the paraffin from solidifying too rapidly must be obvious. Two syringes which have recently been put out meet both these conditions, being carefully constructed with these ends in view. Both are easily rendered aseptic, and with ordinary care the paraffin used in them will not cool so quickly as to render its manipulation by the surgeon difficult of accomplishment.

With the syringes comes a device for holding the bottle full of paraffin, so that the latter may be placed in hot water to

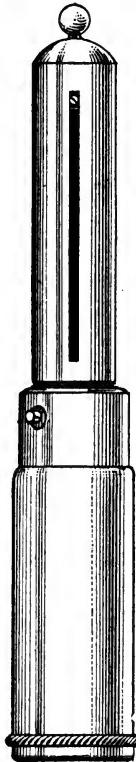


admit of its being softened. The paraffin used is specially prepared for the use to which it is intended to be put. The syringes retail for \$5.00 apiece, the bottle-holder for \$2.00, and the bottle of paraffin for 50 cents.

ELECTRICAL MEDICAL COIL.

In these days of the increased attention which is being given to massage of all kinds, this is a convenient device for the physician to keep in his office. It is very compact and very handy. A small battery is inserted in one end of the stock, and the pressing down of a small button completes a circuit which generates a mild current of electricity. Pulling out the free end of the stock increases the strength of the current, which may thus be controlled by the operator. A scale on the side of the coil indicates the strength of the current which is being administered. Self-massage is a

simple matter with this device. A sponge roller is provided which can be placed in one end of the coil, and the operator holds the stock in his hand, rolling the sponge over the part which it is desired to massage. The compact design of the device permits it to be carried in a small



space, and it is not heavy. Extra batteries are supplied by the manufacturer at the price of ten cents each, and it is estimated that in ordinary use the coil will last several months without renewing. The price of the coil outfit, complete with battery, sponge and so forth, is \$3.00.

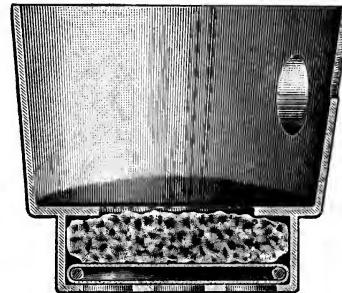
COMBINATION RESPIRATOR.

This device consists of a mouth-piece somewhat similar to those in use with nebulizers, made of soft white rubber and designed to fit closely over the nose and mouth. It is secured by means of a rubber band passing over the ears and around the back of the head, and the wearer breathes

easily through a valve opening outward. The front of the device is perforated and the incoming air is filtered through a combination of silk and sponge which effectually removes from it dust, smoke, fumes and



odors. The worker in a chemical laboratory might find it helpful, and the surgeon who is performing a disagreeable operation may readily see a means for making it useful. The material of which it is made ad-



mits of its being rolled up and slipped into the pocket or a corner of the instrument-bag. The manufacturers have had a large experience in manufacturing respirators, and they ask \$2.00 for this particular one.

The Ingham County Medical Society held its annual meeting on the 8th inst., at the home of the Vice-President, Dr. H. A. Haze, Lansing. Dr. Reuben Peterson, of the University of Michigan, read a paper on "The Surgical Treatment of Procidentia."

BOK REVIEWS

A Pocket Text-Book of Dermatology. By Joseph Grindon, M. D., Professor of Clinical Dermatology and Syphilis in the Medical Department of Washington University, St. Louis. In one 12mo volume of 367 pages, with 39 illustrations in black and colors. Lea's Series of Pocket Text-Books. Edited by Bern B. Gallaudet, M. D. Cloth, \$2.00, net; Limp Leather, \$2.50, net. Lea Bros. & Co., Publishers, Philadelphia and New York.

Dr. Grindon's thorough familiarity with the subject of which he writes, not only in view of modern practice but also in the light of experience from previous teachings, makes him an interesting author. The book is concise, closely and carefully written. Here the student may find definite information on a subject that should be of great interest to him; here also the advanced practitioner and even the specialist may find something of value. The text is carefully classified and arranged with a view to providing much authoritative information in as small a space as possible. The division into sections, each disease being treated as a unit, and the fulness with which the important subjects of pathology and treatment are treated strongly recommend the book to the consideration of the profession.

Numerous illustrations, chiefly those of Dr. John F. Keber's cases, illumine the text and afford valuable diagnostic material for the reader.

Dudley's Gynecology. A Treatise on the Principles and Practice of Gynecology. By E. C. Dudley, A. M., M. D., professor of Gynecology in the North-

western University Medical School, Chicago. New (3d) Edition, Enlarged and Thoroughly Revised. In one very handsome Octavo Volume of 756 Pages, with 474 Engravings, of which 60 are in Colors, and 22 Colored Plates. Cloth, \$5.00 Net. Leather, \$6.00 Net. Half Morocco, \$6.50 Net. Lea Bros. & Co., Philadelphia and New York.

Dudley's book needs no introduction to the profession, among the members of which it already numbers many friends. The book in its third edition bids fair to add a large number to those who already look upon this book as an almost indispensable aid to a knowledge of gynecology. Nearly one hundred pages of text have been added to the second edition, but the rewriting and condensation that has been done by the author admits of the additional text being incorporated in this present addition without adding much to the bulk of the book. The process of revision has brought the book thoroughly into accord with the best and latest modern practice, and a number of new illustrations, showing a number of the minor operative manipulations have been introduced. Tables used in presenting etiology, pathology, physical signs, differential diagnosis, and so on, have been utilized to save space, while they afford an excellent ready reference for the reader. The illustrations are almost uniformly of a high order and the publishers have evidently devoted no little care to this edition of Dudley's Gynecology.

Practical Gynecology, Obstetrics and the Menopause. By A. H. P. Leuf, M. D. Philadelphia. Three Parts, complete in one Volume of 326 pages. Price Cloth, \$2.50. Published by the Medical Council, 4105 Walnut St., Philadelphia Pa.

Non-essentials do not appear in this book by Leuf. His language is simple and forceful and convincing, and his style

is that of a man accustomed to push truths home to students. He is a very positive writer and he gives the benefit of his own experience to his readers in a manner that can scarcely help being of use to them. Dr. Leup believes that too much is made of the necessity for an expensive instrumental equipment for doing gynecological work, and he sets down the names of the indispensable instruments and their prices in a most encouraging way.

The book as a whole consists of reissues of some series of papers, some editorials and some scattered paragraphs, published from time to time in the pages of the *Medical Council* and now gathered into convenient form for reference and information. The author believes that the average general practitioner is too easily overawed by the claims of the gynecologic specialist, who does so much work in the present day, and one of the objects of the original issue of his writings was to do away with this condition of affairs. Leuf believes that greater familiarity with the conditions leading to and present in diseases of women will have the effect of giving the general practitioner more confidence in himself and his ability to do successfully much of the work now being done by specialists. The book has been strongly endorsed by the members of the profession who have already read it. It is not too expensive, covers the ground well and is written in clear-cut and vigorous style.

Pocket Text-Book of *Materia Medica, Therapeutics, Prescription Writing, Medical Latin and Medical Pharmacy.* By William Schlief, Ph. G., M. D., Instructor in Pharmacy in the University of Pennsylvania. New (2nd) Edition. Revised and Enlarged. In one 12mo Volume of 382 Pages. Lea's Series of Pocket Text-Books. Edited by Bern B. Gallaudet, M. D. Cloth, \$1.75, Net.

Limp Leather, \$2.25, Net. Lea Bros. & Co., 706-710 Sansom Street, Philadelphia, Pa.

This is one of the series of attractive pocket text-books issued by Lea, and within its limits serves admirably the purpose for which it is intended. Its 382 pages contain necessarily only the essentials of the subjects treated, but whatever finds a place in it is practical and useful. Definitions that are terse and easy of comprehension are given for the student, together with a number of handy suggestions in regard to pharmacy, prescription writing and other cognate studies. In the section on *Materia Medica* paragraphs are written covering the physical properties, physiological action, therapeutics and toxicology of each medicinal agent described and there is an interesting section on practical anaesthesia. Tables of doses, of poisons and antidotes, and of incompatibilities, with a therapeutic index of diseases and remedies and a general index are furnished for the convenience of the reader. The text is concise, well arranged with a view to the needs of the student and the language used is definite and simple.

It should be found useful by students and practitioners alike.

Lea's Series of Medical Epitomes. A Manual of Genito-Urinary and Veneral Diseases for the Use of Students and Practitioners. By Louis E. Schmidt, M. D., of the Chicago Polyclinic. In one handy 12mo volume of 250 pages, with 21 illustrations. Cloth, \$1.00, net. Lea Bros. & Co., Publishers, Philadelphia and New York.

This is the first volume of Lea's series of medical epitomes, and its character speaks well for the plan on which the series has been laid out. As we have before noted, the tendency of modern times is towards condensation of literature of all natures. The publishers in their fore-

word refer to the volume as a "compendious treatise" and the name is well applied. In 250 pages, Schmidt has given us a well condensed treatise on the subject of venereal and genito-urinary diseases, giving sufficient detail to each to make it clearly understood, and still rejecting everything but the essentials. The book is intended primarily as a foundation for a complete knowledge of modern thought and practice on this specialty and its purpose has been well carried out.

A sufficient number of well chosen and well executed illustrations serve to add to the interest of the book and to form useful material for the study of the matter of satisfactory diagnosis.

Obstipation. A Practical Monograph on the Disorders and Diseases of the Rectal Valve. By Thomas Charles Martin, Ph. D., M. D., of Cleveland, Ohio, Fellow of the American Proctologic Society, Professor of Proctology in the Cleveland College of Physicians and Surgeons, Proctologist to the Cleveland General Hospital, Etc. Reprinted from the August Number of the Philadelphia Monthly Medical Journal. The Philadelphia Medical Publishing Co., Publishers, Philadelphia, Pa.

This little book of 161 pages is devoted to disproving the statements, made by many practitioners, that the rectal valve exists only in the imagination of a few authors. Dr. Martin not only claims that such valves do exist in the rectum, but he establishes the fact pretty clearly in the course of his monograph. An interesting bibliography of the rectal valve is furnished by Martin, and it extends from the year 1723 to 1896, a number of authors neglecting to make any mention whatever of the existence of the rectal valve.

Martin has made much progress in the matter of treating the valves for the relief of obstipation, and his record of cases

is, or should be, convincing. Illustrated description is made of the instruments used in his work, and of the position he has devised for inspection and treatment. The little book closes with a number of cases treated. There are some interesting reproductions from photographs of a number of rectums, filled with paraffin and showing the valves.

Obstetrical Nursing for Nurses and Students. By Henry Enos Tuley, M. D., Louisville, Ky., Professor of Obstetrics, Kentucky University, Medical Department, Etc. Pages, 202. Price, Cloth, \$1.00 net. G. P. Engelhard & Company, Chicago, 1902.

A small book, but a helpful one, with due acknowledgement of the invaluable assistance which a well trained nurse may render to the accoucheur. The text is an elaboration of the lectures in obstetrics delivered by the author to the students in the training school for nurses attached to the John N. Norton memorial infirmary, and the City hospital of Louisville. Dr. Tuley's experiences find a reflection in his work in this book which cuts matters down to essentials. He believes thoroughly in trained nurses—nurses that shall be thoroughly well trained, and then be permitted to exercise the authority which is theirs by right of knowledge. Any nurse who takes the pains to make a careful and a thoughtful study of the information contained in this book will find herself better fitted to take care of her patient in obstetrics than she was before. A number of illustrations furnish valuable assistance in making the text clear. The book itself is well written, in a close, careful style, and proper emphasis is laid on the most important points in obstetrical nursing.

It depends on education to open the gates which lead to virtue or to vice, to happiness or to misery.—Jane Porter.

THE DETROIT MEDICAL JOURNAL.

NO. II.

FEBRUARY, 1903

VOL. II.

THE PATHOLOGY AND DIAGNOSIS OF OTITIS MEDIA INSIDIOSA, i.e. SCLER- OSIS; WITH REMARKS ON THE TREATMENT.

BY HENRY J. HARTZ, M. D.,
Detroit, Mich.

In the last ten years considerable progress has been achieved in microscopic research into the diseases of the ear. Our knowledge of pathology has been enhanced more especially through the improved methods of decalcifying, embedding and staining microscopic sections.

In the middle of the last century but little definite knowledge existed of the histopathologic states of the finer structures of the labyrinth, and the diagnosis and treatment of ear diseases was dependent largely upon microscopic and clinical observation. The first pathologic condition of the stapes was demonstrated by the unotomist Morgagni, who discovered that a bony deposit caused a complete fixation of the stapes. The clinicians of that early period regarded ankylosis of the stapes as the cause of progressive deafness and considered it to be incurable. Later writers attributed this form of progressive deafness to some lesion of the acusticus, and the designation of "nervous deafness" was introduced. The gradual development of laboratory research and the methods of making functional examination enabled aurists of the last century to diagnose ear diseases and class them, broadly, into affections of the sound-perception and sound-conduction apparatus. The Toynbee collection of specimens and the labors of Politzer, Moos, von Troeltsch and many others, revealed the fact that the majority of dis-

eases of the ear reside in the sound-conducting channel, and many cases of the nervous deafness of the older writers were classed with middle ear disease. Within the last ten years new light was furnished through laboratory and clinical research of Politzer, Katz, Bezold and Siebenmann on the pathology of the disease variously known as sclerosis of the middle ear, dry middle ear catarrh, chronic progressive deafness and otitis media insidiiosa.

The term sclerosis was selected by von Troeltsch on clinical grounds, having for its anatomic basis only that the mucous membrane of the tympanum and the ear drum appeared sclerotic. It was held that an interstitial inflammation of the mucous membrane of the tympanic cavity initiated this sclerosis, which by extension involved the chain of ossicles, the oval and round windows. The rigid and dense condition of the membranes was regarded as obstructive to the transmission of sound waves. The disease presented clinically a high degree of deafness with pervious Eustachian canals and normal tympanic membranes. The new findings revealed that the lesions consist not so much of sclerotic conditions of the membrane and ossicles, but rather of a hyperplasia of the bony elements of the capsule of the labyrinth. This osseous process may localize itself to affect simultaneously the cochlea and the ossicular chain, and may also extend to the semi-circular canal. The osseous change begins primarily within the bone, independent of middle ear disease, and is allied to that form of disease first described by Politzer

as primary capsulitis labyrinthi. This author discovered this pathologic change by autopsy in subjects of advanced age.

Other investigators affirm what Politzer suspected—namely, that capsulitis labyrinthi may begin at an early age and progress slowly to complete fixation of

ization is in that part of the ear that is most active—namely, the articulation of the stapes with the oval window.

When confined to the labyrinth this hyperplasia may by its exostoses, much like a neoplasm, affect the integrity of the acousticus in a mechanical way, and induce

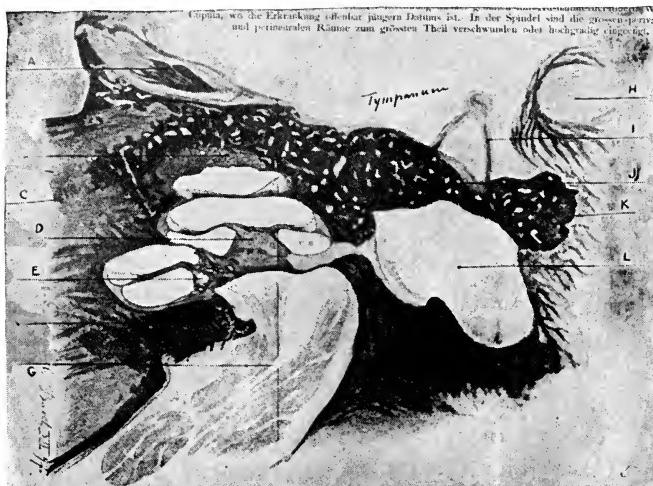


Fig. 1. Horizontal section through the labyrinth in region of stapes and upper portion of cochlea.—
Siebenmann.

G—Acusticus.

H—Facial nerve.

I—Stapes (ankylosed).

J—Stapes, foot plate (ankylosed).

K—Hyperplastic bone.

L—Vestibule.

A—Tenor tympani.

B—Capsule of cochlea.

C—Normal bone.

D—Central axis of cochlea.

E—Ganglionic canal.

F—Hyperplasia of bone.

Patient was a physician 46 years old. Deafness in both ears at his twentieth year. Father and two brothers deaf. No history of otitis media. Some vertigo and tinnitus.

Diagnosis in vivo: Nervous deafness.

Watch heard 1 cm. on right side.

Watch heard 1 cm. on right side by pressing only.

stapes in the adult. A place of predilection for this osseous formation exists wherever there are deposited cartilaginous elements, as in the compact bone of the capsule, the posterior half of the oval window, at the point of articulation with the stapes, the upper and the lower wall of the cochlea and in any of the semi-circular canals. The most frequent local-

Watch heard through bone clearly from all points.

Microscopic Finding Hyperplasia of capsule of labyrinth with exostoses in pelvis ovalis. Bony fixation of stapes on vestibular side. Hyperplasia of the cochlea, capsule, with proliferation of the perineural and perivascular connective tissue in the lower basal turn of the cochlea.

the symptoms of nervous deafness. See Fig. I.

Its localization in the ossicular chain causes either partial or complete fixation or dislocation of the stapes. Illustration of this condition are Figs. II., III. and IV.

In two out of the twenty autopsies that have thus far been made, was revealed simultaneous involvement of the sound

perceiving and the sound-conducting apparatus. Siebenmann first demonstrated this combination in the semi-circular canal, and cochlea and the ossicles, the case, *in vivo*, presenting the clinical picture of nervous deafness. The functional

semi-circular canal. The acusticus was found to be without a lesion. The stapes was partially ossified and dislocated, as shown in Fig. 7.

Pathology.

The osseous process may be divided

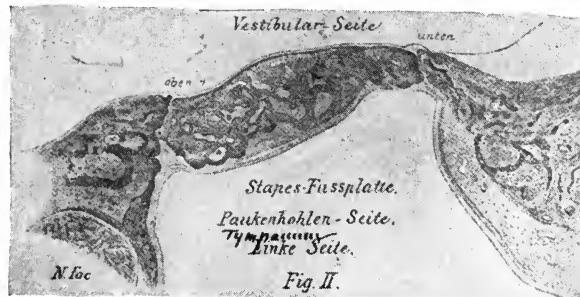


Fig. II.

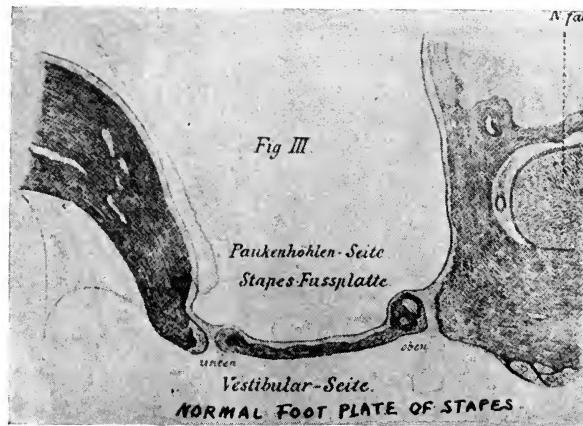


Fig. 2. Vertical section through foot plate of stapes. (Bezold.)

Male 24 years old, deaf in both ears since seventeenth birthday. Brother and sister likewise deaf.

Diagnosis in vivo Sclerosis.

The functional examination revealed the following:

Schwabach's test, A fork, prolonged 19 seconds.

Rinné test, a' fork negative

9 seconds.

10 seconds.

Lower tone limit

R. c. 64 V.

L. F. 85 V.

Whisper

R. 6 cm.

L. 25 cm.

Microscopic Finding Hyperplasia of bone of foot of stapes. Ankylosis of stapes. Labyrinth and tympanic cavity are normal. Fig. iii shows normal size of foot plate for comparison with Fig. ii, which is five times enlarged by the osseous formation.

st showed diminished bone conduction. Vertigo without vomiting (necessitating lying down) was exhibited by the patient, being an evidence of involvement of the

into two stages, the first of which consists in an active proliferation of all the cellular elements within the bone. New vascular and cellular tissue is formed in

the marrow spaces and in the Haversian canals. Among the new formed bone cells may be found giant cells, under the influence of which the basement of the bone substance is principally absorbed. Hollow spaces are formed, and areas of erosion gradually undermine the originally compact bone, which becomes traversed by irregular and abnormal channels. Simultaneous to the absorptive process there is formation and apposition of new bone, but which is unlike the original, being more voluminous and porous. The second stage is ushered in when the progressive changes cease and when the new bone assumes a lamellar structure. Then the abnormally large and thick bone

corpuscles are found concentrically arranged, and the nucleus of these later undergoes atrophy. The vascular system is likewise gradually altered by the formation of connective tissue, in which times may be found fat-cells. The Haversian canals and spaces have been changed in structure by this resorptive and appositional process, and all the cartilaginous elements have been metamorphosed into osseous tissue, as it cannot be found in the new growth. This process constitutes not only a hyperplasia and hyperostosis, but also a metaplasia.

The new structure differs from the normal by its affinity and greater absor-



Fig. 3. A vertical section through the round and the oval window.—Siebenmann.

- A—Utriculo-ampullaris nerve.
- B—Normal bone.
- C—Facial nerve.
- D—Macula utriculi.
- E—Hyperplasia of bone.
- F—Ankylosis of stapes.
- G—Caput stapedis.

- H—Thickened foot plate of stape.
- I—Promontory.
- J—Lamina spiralis.
- K—Tympanic membrane second.
- L—Niche of round window.
- M—Ampullaris posterior nerve.

Patient was 60 years old, totally deaf on both sides; began during exposure in war at age of 25 years. Functional examination was not made. Hyperplasia of the capsule of the labyrinth involving the

stapes with incomplete ankylosis. The upper margin of the oval window has bony union, whereas the lower margin free. The plate of stapes is much thickened.

the power of carmine stains, which fact is utilized in the differential diagnosis. The microscopic evidences of this new formation are the osteophytes, situated usually near the stapes articulation. Frequently the stapes is partially absorbed by penetrating blood-vessels and replaced

upon an invasion of this bone-formation into the cochlea and the semi-circular canals, may permit a change in the pressure and the density of the labyrinth fluid. The mechanical and physical qualities of the endo- and peri-lymph may be so altered as to interfere with the nutrition



Fig. 4. Horizontal section through ankylosed stapes and hyperplastic bone of the capsule of labyrinth.
—Katz.

—Foot plate of stapes.

—Hyperplasia of bone reaching to endosteum

—Hyperplastic bone involving the foot plate of stapes, causing complete ankylosis.

The above specimen was obtained from a woman of 39 years of age, who was very deaf, suffering from tinnitus. She had never had otitis media, but had

D—Vestibular nerve.

E—Vestibule.

F—Facial nerve.

been affected with rheumatism. Family history and functional test were unobtainable.

osseous formations. Sometimes a dislocation of the stapes is produced by an encroachment of the osteophytes. The function of the oval and round window may also be seriously interfered with by hyperostosis producing partial or complete occlusion. When the process invades the tip of the cochlea, the patency of the Eustachian tube is threatened. Its lumen is narrowed by thickening of the periosteum, as was demonstrated by the microscope. Owing to the great vascularity which attends especially the first stage of this process, it is probable that the distressing tinnitus of progressive deafness may have its origin in the increased capillary circulation. The structural alteration consequent

of the parts and induce disease. The detonating sounds heard by some patients and the complex of symptoms of Meniere may be ascribed to a perforation of the septum, dividing the endo- and the peri-lymph systems.

While the histologic alterations were found to be identical by different authorities, yet their designation of the bone-hyperplasia differs and new synonymous terms are consequently introduced. Politzer defines it as capsulitis labyrinthi or oto-sclerosis. Siebenmann, noting the resemblance to sponge by its rarefied spaces and porous structure, designated the new formation as spongification. Katz compares the process to Volkman's osteitis vascularis chronica. From personal ob-

servations of different specimens the osseous change appears to be identical with the rarefying osteitis of our textbooks.

Etiology.

The etiologic views also differ. Siebenmann regards the disease as probably a resorptive or physiologic process of ossification of cartilaginous tissues. He does not look upon it as an osteitis, but rather as a final development process, which normally does not take place in the temporal bone, though it is the rule in other bones. Bezold believes that the pure cases of sclerosis are not due to catarrhal diseases (although the two may co-exist).

The diatheses of inflammatory rheumatism, gout and scrofula are regarded as predisposing to this bone formation, also the diseases of the nares-pharynx, such as diseased tonsils and adenoids. The theory that a metamorphosis of cartilage into bone may induce the hyperplasia, is strengthened by the fact that Virchow admits the possibility of formation of bone out of cartilage. It is highly probable that the calcareous deposits and other products of inflammation, such as synechia and adhesions may, by their irritation, incite this metamorphosis to activity. Sudden climatic changes and exposure to wet, likewise injuries, such as a fall from a horse, have been associated with the beginning of this disease. It has been frequently observed that the sclerosis is not always a progressive deafness; it may remain stationary and the individual have sufficient hearing-power for social or business intercourse. The microscopic records show that the nerves supplying the bone have always been normal—a fact which will contradict the theory that a trophoneurosis induces the bone disease. In most cases examined the membrane of the tympanum was found thickened, the result of the active hyperemia which accompanies this pro-

cess in its first stage, no evidence of round cell infiltration was found. But in very few cases was it discovered that the bone hyperplasia was the sequel to middle-ear suppuration. The search for bacteria as causative factors proved negative. Clinical observation and autopsy records affirm that capsulitis labyrinthi may begin at an early age, and that its duration may be from three to thirty years. The fact that more women than men are afflicted suggests that pelvic diseases may act predisposingly to progressive deafness. Seventeen per cent. are first affected with the disease at the time of puerperium, this fact suggesting to several authorities the justifiability of committing an abortion in those subjects affected with progressive deafness, as prophylactic procedure. Dr. Blake has observed a hyperemia of the promontory in the region of the niche of the oval window in young women, occurring periodically with menstruation and those subjects affected with erosion of the cervix, malposition of the uterus and other pelvic abnormality, upon correction of these abnormal conditions, the hyperemia disappeared and an improvement in the hearing followed. It is conceivable that a long continued congestion, reflex induced by pelvic disease in the sensitive region of the niche of the oval window, may incite not only a connective tissue but also a bony hyperplasia. Statistics show that about 10 per cent. of all middle ear diseases are true sclerosis, and this group, according to new discoveries, results as a consequence of a bony or calcareous formation. The fact that the disease affects both ears uniformly, would lead to the conclusion that a constitutional diathesis plays a certain role. The Toynbee collection of 1,100 pathological specimens contained many that exhibited depositions of calcareous material, and since then the investigations have shown that the gouty diathesis is an importa-

factor. Several cases were reported as occurring consecutive to inflammatory rheumatism, which revealed the identical pathologic changes of arthritis deformans, in the stapes articulation.

Diagnosis.

The diagnosis of capsulitis labyrinthi is made by the exclusion of the other forms of progressive deafness, the objective signs, the subjective symptoms and the functional test with tuning forks. This group, then, may be recognized by the

tympanic cavity unobstructed to air and free from secretion. The objective signs scarcely show a departure from normal conditions, and do not indicate the high degree of deafness which is usually present. This fact led an author to the facetious definition that sclerosis is a disease in which the physician sees nothing and the patient hears nothing. Fortunately, the subjective symptoms, the family history and the functional test with tuning forks are of great diagnostic value,

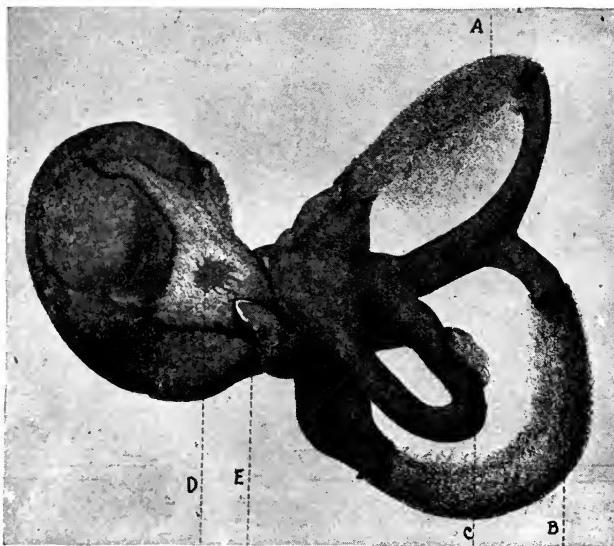


Fig. 5. Hyperplasia of semicircular canal and cochlea.—Siebenmann.

A—Superior semicircular canal.
B—Posterior semicircular canal.

C—Lateral semicircular canal.
D and E—Ankylosis of canal.

familiar sign of sclerosis, such as normal tympanic membrane (with perhaps diffuse or circumscribed opacity). The handle of the malleus may be slightly retracted, but is not rotated upon its axis. Now and then a red area is visible through the tympanic membrane, which is indicative of hyperemia in the region of the promontory, serving as strong corroborative evidence. Inspection of nose, pharynx and mouth of Eustachian tubes reveals normal conditions. The auscultation by catheter demonstrates that the Eustachian tubes are pervious, and the

enabling the careful aurist to recognize sclerosis, even in its early stage.

The subjective symptoms are high degree of deafness, usually of both ears and of insidious origin, more often between the ages of 20 and 35. Some acute pain and sensation of pressure and numbness around the head is felt. Persistent and distressing tinnitus, accompanied at times by detonating noises and some vertigo. Paracusis Willisi is nearly always present. Inheritance plays an important role in this group. In half of this group, some immediate member of the family is affect-

ed, seventeen per cent. originating at the puerperium.

It is important for diagnosis to eliminate all other forms of progressive deafness, such as arise from industrial pursuits; the constitutional anomalies, such as leukemia and hereditary syphilis, like-

immobility of the tympanic membrane, as seen with the otoscope, also the history of the patient and the absence of paracusis Willisi. These factors, together with an improvement of the hearing upon inflation, will aid in the differential diagnosis.

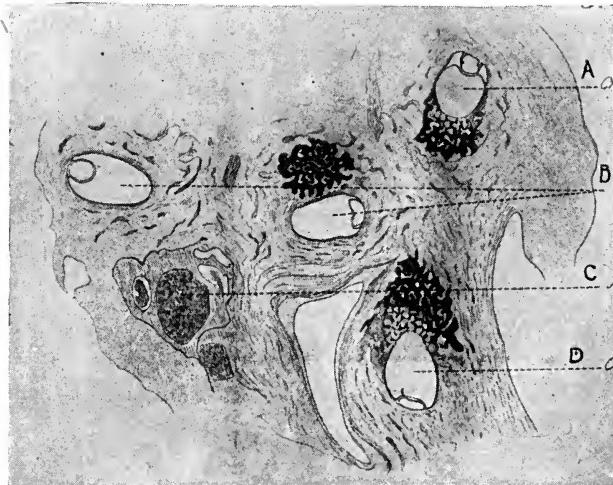


Fig. 6. Hyperplasia of semicircular canals, showing areas of rarefaction.—Siebenmann.

A—Posterior canal.
B—Lateral canal.

C—Facial nerve.
D—Posterior canal.

wise the deafness following the acute and chronic infectious diseases; neoplasm of the tympanic cavity, and also the nervous diseases implicating the acousticus. The deafness of old age is also to be excluded, as it is not due to an osseous formation, but rather to an atrophy of the acousticus. Most important is the exclusion of catarrhal and suppurative diseases of the middle ear and Eustachian tubes, since relatively the same functional test applies to them. The objective signs of the suppurative class, in contradistinction to sclerosis, are marked, except when co-existent. These are the retraction of the tympanic membrane, the handle of the malleus being rotated upon its axis, the evidences of former inflammation and suppuration, which may be adhesions, a cicatrix, a perforation of the drum-membrane, or calcareous deposits. The

Functional Test.

By the functional examination with the tuning-fork, we are enabled to measure the intensity and duration of a given tone. Through two avenues, by air and bone, may be discovered diseases of either the sound-conduction or the sound-perception apparatus. It will be remembered that the human ear is capable of perceiving a note as low as twelve vibrations per second, but the average normal low-tone limit is C₂, the equivalent of sixteen vibrations per second, while the highest note heard by the normal ear is g⁸, or the equivalent of about 50,000 vibrations, comprising in all eleven octaves of tone. Experiments prove that the chain of ossicles and drum-membrane are requisite for the conveyance of the lower tones, the higher notes finding more ready ingress through the bone-channel. Through the

agency of antagonistic forces, the sound-conducting apparatus, that is, the tympanic membrane and chain of ossicles, is held in a state of perfect equilibrium. This is accomplished by the *musculus tensor tympani*, the *stapedius* and the muscular fibres of the tympanic membrane, which together prevent excessive tension and relaxation. In consequence, the sound-waves are conveyed more effectually through the æreo-tympanic channel than the osseo-tympanic channel. A disturbance of this exquisite state of tension—as by closure of the eustachian

tubes, by adhesive bands, by perforation of the drum-membrane, or an osseous or membranous formation causing fixation of the stapes—will result in an alteration of the normal sound-conduction. That of the bone may exceed that of the air-channel. The extent of such interference with the function of the sound-conducting apparatus may be determined with the aid of tuning-forks. There exists in all cases of rigidity or fixation of the ossicles a defect in the perception of the lower tones by air-conduction. This defect of perfection may range from one-

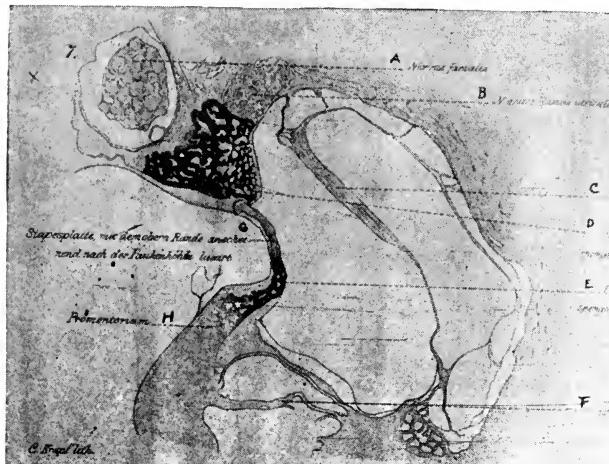


Fig. 7. Hyperplasia in the region of oval window and stapes articulation.—Siebenmann.

A—Facial nerve.
B—Utriculo-ampullaris nerve.
C—Macula utriculi.
D—Upper portion of oval window, showing hyperplasia of bone with slight exostosis into the vestibule.

E—Hyperplasia of bone causing ankylosis of foot plate of stapes.

F—Tympanic membrane second.

G—Base of the stapes dislocated toward the tympanic cavity.

H—Promontory.

Figs. 5, 6 and 7 represent sections obtained from one subject in whom the hyperplasia affected simultaneously the stapes, the cochlea and the three semi-circular canals. The case was a woman aged 52, who had been deaf for five years. Father had also been deaf. She suffered from vertigo without vomiting and pain in ears. Tympanic cavity, drum membrane normal.

Diagnosis in vivo. Progressive nervous deafness.

Schwabach test shortened 10 seconds. Rinné test, positive 25 seconds.

Whisper

R. 4 cm.

L. 150 cm.

Lower tone limit could not be determined owing to impending death.

Microscopic Finding. Hyperplasia of bony capsule of the three semi-circular canals and cochlea, involving the foot plate of stapes. Formation of exostosis on vestibular and tympanic surface of the oval window, causing dislocation of the stapes on one side, while the other shows evidences of commencing ossification of the cartilaginous covering of the stapes.

half to one and a half octaves of the lower tones, depending upon the degree of deafness, while the bone-conduction is prolonged. The diseases of the cochlea, disturbing the sound-perception apparatus, are evidenced by the defective hearing of the high notes through air and by diminished bone conduction. The translations of the highest notes are supposed, according to the theory of Helmholtz, to take place in the lower region of the cochlea, in the narrowest portion of the basilar membrane. Hence, the locality and the extent of the disease may be estimated by the defect in the perception of high notes. With the aid of Schwabach's and Rinné's tests and the determination of the lower-tone limit, it may be ascertained whether or not fixation of the stapes exists. This can be almost positively shown by the Bezold triad test. These are, first, prolonged cranial bone conduction with an A fork; Rinné's test, shortened or negative, with a¹ fork; third, defect in perception of one-half to one and one-half octaves of lower tones. When the labyrinthian structure is exclusively invaded, the same test applied will react with almost opposite results. First, shortened cranial bone-conduction with a¹ or A fork; second, Rinné's test, positive or very little shortened; third, clear perception of nearly all lower tones; fourth, defect in hearing high tones. Thus, the same process may, according to the location, produce a bony ankylosis of the ossicles or nervous deafness, and may be diagnosed by the different tests. The accuracy of these tests cannot be questioned; diagnoses of stapes ankylosis and nervous deafness, made *in vivo*, have been sufficiently verified by autopsy examinations. In more than half of the cases the process was found localized on the vestibular side of the oval window, and affected the lower turn of the cochlea. The extent of the invasion of this part of the labyrinth may be determined by the defect in per-

ception of the high tones. An extensive co-existence of the bone formation in the ossicles and labyrinth renders the differential diagnosis almost impossible. In that event, they may be classified as dysacusis. In this category also belong the one-sided deafness, where the normal ear of the opposite side interferes with the examination of bone-conduction, and all such cases where insufficient data are obtained, as from children and the weak-minded. The term sclerosis is suitable when applied to the sclerotic condition of the mucous membrane of the tympanum, the oval and round window, but is insufficient when an osseous formation exists as the latter is an increase rather than a decrease of tissue. A more precise definition would be capsulitis labyrinthi complicated by either stapes fixation or nervous deafness. When a combination of both exists the case could be classified as simply deafness or dysacusis. The term spongification, introduced by Siebenmann, is as appropriate as capsulitis labyrinthi, but does not convey so precisely the point of origin.

Treatment.

The discovery that an osseous process and not catarrhal disease, is the fundamental cause of sclerosis gives direction to our therapeutic efforts. The mechanical, the surgical and the medicinal treatment of sclerosis have been faithfully tried, but with unsatisfactory results.

The medicinal treatment of sclerosis with a view of causing removal of the matters morbi obstructing the ossicles by the internal use of absorbents, such as iodin, mercury and phosphorus, has given only negative results. The most promising has been the use of phosphorus in small doses, administered for periods of six months during the year. The thyroid extract was given with some satisfactory results in the early stages of the disease due probably to the absorption of the granular tissue, which precedes the osse-

us formation. An early diagnosis of progressive deafness, predisposed by heredity, will permit of proper hygienic and medicinal treatment. The use of large doses of potassium iodid has been found efficacious in the hands of Politzer. The administration of potassium iodid should be continued for a period of three months, or longer, during the year. In cases where the rheumatic diathesis is a causative factor the use of solvents for uric acid is indicated.

Mechanical Treatment.

This consists of mobilization of the chain of ossicles, which, if not excessive, may temporarily benefit the hearing. This is brought about principally by transudation of serum, following massage, which facilitates the movement of the articulation of the ossicles. The effect of excessive pneumo-massage by the use of rarefacteurs is exerted principally upon the posterior segment of the tympanic membrane, the fibres of which become weakened, resulting in relaxation of the drum membrane. The condition induces not only increased tinnitus, but also a decrease in the hearing power. Pneumo-massage should be given only for one-half to one minute, twice or three times per week for one or two months. The patient should be advised to return after a period of two months for another course of pneumo-massage. Dr. Blake emphasized the necessity of gentleness in the use of the rarefacteur, as it is apt to provoke a misplacement in the whole chain of ossicles, more particularly a relaxation of the posterior segment of the drum head. When this condition exists, Dr. Blake resorts to an application of colodion to the relaxed portion of the tympanic membrane with the view of contracting the parts and thus restoring equilibrium.

Surgical measures, such as stapedectomy, excision of oval window and other procedures, have proven of temporary

benefit only. It was found that the trauma of the operation induced a migration of plastic material, which later organizes into a cicatrix and frequently renders the condition for hearing worse. Equally ineffective has been the local treatment, by forcing irritating substances, such as iodin, silver and solvent solutions, into the tympanic cavity. It has been condemned on the theory that the irritation produced an increased periosteal cell proliferation, an exception to this being when catarrhal disease and sclerosis co-exist. A prophylactic procedure is the removal of diseased tonsils in the pharynx and vault, upon the theory that suppurative processes induced primarily by the diseased tonsils are frequently followed by deposits of calcareous matter, which in later life may initiate ossification of cartilage in those subjects predisposed by heredity to capsulitis labyrinthi.

It is doubtful if the osseous hyperplasia of advanced sclerosis can be removed by any agent now at our command. The cell-stimulating and absorbent effects of the X-ray and the violet ray upon lupus and inoperable malignant tumors have led the writer to institute experiments with these agents in cases of sclerosis and chronic otitis media.

Summary.

1. Sclerosis is fundamentally a hyperplasia of the bony capsule of the labyrinth; the hyperplasia is a transformation of cartilage into bone, i. e., metaplasia, accompanied by formation of outgrowth of bone, i. e., hyperostosis.

2. It is initiated by constitutional diathesis, such as inflammatory rheumatism, gout, syphilis and scrofula, by diseased tonsils in the pharynx and vault, suppurations with calcareous deposits in the tympanic cavity, exposure to cold and wet and injury.

3. Its localization is usually in the labyrinth capsule near the stapes articulation with the oval window, inducing fixation of the stapes.

4. It may involve also the semi-circular canals and cochlea, to produce symptoms of nervous deafness.

5. It may affect simultaneously the sound-conduction and the sound-perception apparatus.

6. The functional test, the subjective symptoms and family history permit an early diagnosis of this disease. These are:

1. Hyperemia of promontory.
2. Heredity.
3. Schwanbach test reveals prolonged bone conduction.

4. Rinné's test is negative in varying degree.

5. Defective perception of one-half to one and one-half octaves of the low tones.

7. Probably ten per cent. of the middle ear diseases are true sclerosis and are designated synonymously capsulitis labyrinthi, oto-sclerosis, spongification, dry middle ear catarrh and otitis media insidiosa. The therapy is effective in early stages of the disease by hygienic and medicinal treatment. The more advanced cases may be improved by judicious treatment, with amelioration of the tinnitus.

27 Adams-ave. East.

Tonsillitis Powder.—Good results have been reported from the use of acetanilid and sodium salicylate equal parts, well mixed and blown over the inflamed parts. Repeat every fifteen minutes until relief is experienced.—(*St. Louis Clinique.*)

Ancient Appendicitis.—And now a mummy of some 3000 years B. C. has the impertinence to prove that appendicitis was performed in those days and that then, as now, patients died from it even though the operation was successfully done.—(*Pacific Coast Journal of Homeopathy.*)

[Does the writer want us to believe that if the departed had been treated medicinally, the body would still be living? It seems scarcely reasonable. Ed.]

X-Rays and Honesty.—A Philadelphia firm, according to a press dispatch from that city, has received an order from the Japanese government for several X-ray machines, which are to be used for a novel purpose.

The firm some time ago sold to a representative of the mikado an X-ray machine, which, the Japanese explained, was to be used in the governmental mints in Japan for the detection of dishonest employes, who stole gold coins by swallowing them.

The machine was used to examine suspects as they left the mint daily, and of course it revealed the presence of any coins "in their midst." The test was so satisfactory that the mikado ordered several more machines, hoping to prevent the form of theft referred to.—(*Exchange.*)

Sugar As A Tonic.—The *British Medical Journal* says: "Keim and Lehman observe that on the evidence of the activity of sugar in relation to muscular activity, shown by experiment, it has been believed sugar influences uterine contractions. They make out, however, that practically sugar only acts on uterine muscles after the contractions of labor have set in, and has no influence on the expulsion of the after-birth and on uterine retraction. They declare, as an interesting and instructive fact, that among professional consumers of sugar, such as women who work in refineries, labor is very short, and muscular force is maintained during the whole labor; indeed the sugar acts on the muscular system of the entire body. In short, sugar is not only an oxytocic, but also a tonic influencing muscular energy."

Attractive Calendar.—The Denver Chemical Mfg. Co. has issued a pleasing folder, with the compliments of the season to its friends in the profession. The calendar is attractively printed in holiday colors, and is a very neat piece of work.

DOUBLE UTERUS AND COMPLETE VAGINAL SEPTUM IN A GIRL 24 YEARS OF AGE.*

BY H. W. LONGYEAR, M. D.,
Detroit, Mich.

The specimen which I here show you, that of an ovary and Fallopian tube, is not remarkable for any especial pathological quality—in fact, it is normal excepting for the remains of an old small hematoma in the ovary—but it is of considerable interest for the story which it tells. The patient, from whom I removed the specimen this morning, is the possessor of a double uterus and complete vaginal septum and has been under my care and treatment during the last four years.

When she first came under my observation, which was at the Woman's Hospital, she was twenty years of age, but as undeveloped in every way as a girl of fifteen or sixteen. She was then just beginning to menstruate, and came to me complaining of severe dysmenorrhœa. On examination, under anaesthesia, this interesting condition was discovered. The vulva was normal, the vagina was divided into two parts by a firm antero-posterior septum which extended from the introitus to the vault, where, on each side of this dividing membrane a cervix uteri was felt. On passing a sound along the finger into each os, it was found to be reflected well to the left on the left side, and to the extent of two and one-half inches, while on the right side it was reflected but little from the vertical line and the uterine canal was but two and one-quarter inches in length. Each cervical canal was thoroughly dilated and upon leaving the hospital the patient was directed to report occasionally for observation and further treatment.

She was not seen again by me until June 13, 1902, (about three years and a half after the dilatation), when she was

sent to me by Dr. Samson, of Windsor. Her general development was then remarkably improved in every way. For several months she had had increasing severe pains at each menstrual epoch, beginning in the right hip, and later extending across the abdomen. On account of the limited room in the vaginal canal, due to the septum, bimanual examination was unsatisfactory, but a small unnatural mass could be felt in the region of the right ovary, which I decided to treat through an abdominal incision, and at the same time destroy the vaginal septum.

Accordingly, on June 14, the operation was performed at the Woman's Hospital. The septum was removed in the following manner: Its whole length was first grasped by two pairs of long pedicled forceps—one anterior and one posterior—from the vault of the vagina down, incised between the two with scissors, and the edges thoroughly cauterized with Paquelin cautery. On the removal of the forceps, no hemorrhage occurred. This left the cervices projecting into a fairly capacious vagina.

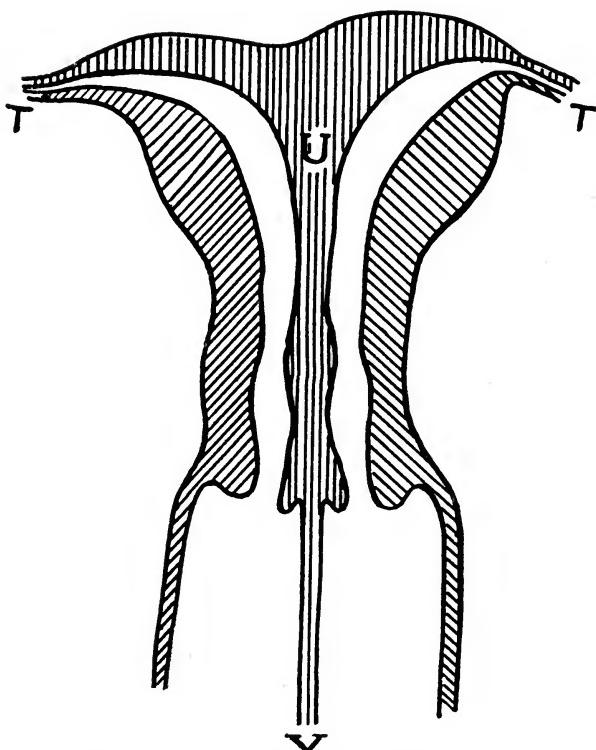
The abdomen was then opened, and a careful examination of the pelvic contents made. The double uterine body was nearly three inches in breadth, the right side being somewhat smaller than the left, with a slight indentation at the fundus, marking the junction of the two uteri. The left ovary and Fallopian tube were normal, the right tube was normal, but the right ovary was enlarged to the size of a hen's egg. The latter was removed and found to consist mainly of a hematoma.

Her first menstruation after the operation was while she was still in the hospital, and, much to my disappointment, was attended with the same old pain in the back of the right hip. This pain, Dr. Samson reports, had steadily increased in severity until now, regardless of various kinds of treatment, it had become a

*Reported at the meeting of the Wayne County Medical Society, January 29, 1903.

menace to her life. Dr. Samson sent her to me again on Jan. 29, when, examination revealing no cause for the pain, I determined to remove the remaining ovary, and so bring on the cessation of menstruation. At the operation nothing was discovered, such as adhesions, or other malformation, to cause the pain, so that the supposition must be that it has been due

Practices for Sale.—We have two special and one general practice for sale. The two special practices include one oculist's office in the northern peninsula, and a practice devoted to nose, throat and ear in a large city, established eighteen years. The present holder will stay to introduce successor. Write us about these practices.



Bilocular uterus and vaginal septum; vertical section. U, Partition which divides the uterus into two halves; T, Tubes; V, Vagina divided by the uterine septum prolonged.

to some unnatural nerve supply or formation, occurring coincidently with the other more apparent malformation.

At this operation it was noted that the right uterus, the side from which the ovary had subsequently been removed, had diminished considerably in size.

Note.—A bloody discharge from the uterus two days after the operation, caused the same pain in the hip, but somewhat less in severity, which ceased promptly with the cessation of the flow.

271 Woodward Ave.

The Chinese Idea of It.—The Chinese Penal Code provides that if death results as the consequence of administering drugs or the use of instruments contrary to established rules and practice, and if, upon investigation, the magistrate shall find that only an error can be charged, the physician or surgeon can obtain relief from the penalties inflicted for homicide, but that he shall forever be debarred from again engaging in the practice of his profession.—(*Medico-Legal Bulletin.*)

RABIES.*

BY JOSEPH SILL, M. D.,
Detroit, Mich.

During the last fall, rabies has been prevalent in Michigan to a degree unknown for many years. The frequency with which physicians in this state are called upon to deal with bites from dogs supposedly rabid, and the former rarity of the disease, made a brief discussion of rabies not inopportune.

Rabies has been recognized since very early times. Democritus of Abdera (460 B. C.) makes the first mention of it. Xenophon, Aristotle, and others of the ancient Greeks refer to it. Celsus describes it as "a most miserable kind of a disease, in which the sick man is at the same time tormented by a dread of food and water, in which condition hope is reduced to a narrow limit." But little of importance was added to our knowledge of this disease until Magendie and Bouchet in 1813 produced rabies in a dog by inoculations of the saliva of a rabid man. Pasteur was the first to put our knowledge of rabies on a sound scientific basis. Of his work I shall speak more fully later.

Climate and temperature have little to do with the prevalence of rabies. No part of the world is free from it. It was common in Greenland when the temperature was 25° below zero, and it is found in Egypt and Constantinople.

It is, I believe, a generally accepted idea that rabies is to be dreaded only during the hot summer months. I cannot too strongly protest against this. Rabies may and does occur at any season of the year. In fact there is reason to believe that hot weather prolongs the incubation period of the disease and may delay death. The following table from Suzor will show the error of believing that rabies is a summer disease. He reports:

During March, April and May.....	35 cases
During June, July and August.....	14 cases
During September, October and November	25 cases
During December, January and February	14 cases

Written for the Detroit Medical Journal.

Keirle* reports three cases in man in December, one in January, and two in February. I can add one in September and one in January.

Apparently all mammalia are susceptible to rabies. At any rate their susceptibility to this disease is so general that an assertion that any variety is immune must be backed up with experimental proof to gain credence. With us it is most frequently seen in the dog, although it may be communicated to any of the other domestic animals.

In dogs the disease is seen in two forms, the so-called "furious" and "dumb" rabies. It must be remembered that both are the same disease, and that an animal bitten by another suffering from dumb rabies may develop the disease in the furious form, and vice-versa, and that dumb rabies is less dangerous than furious rabies, because animals suffering from the former show less inclination to bite than those afflicted with the latter, and not because it is a less virulent type of the disease.

The symptoms and course of rabies are quite characteristic in dogs. The disease may be divided into three stages. 1. Premonitory. 2. Furious. 3. Paralytic. When the three stages are present, we have the furious type of the disease, and when the second stage is either absent or entirely or of short duration as to attract little attention, the disease assuming the dumb or ptylic form.

The first thing noticed about a dog affected with rabies is a change of disposition. An active animal becomes cross and irritable; one naturally vicious may become unusually affectionate. The dog seeks to escape notice. He will hide in dark corners out of the way places. He becomes restless, and wanders about aimlessly, snarling and biting at what-

*I wish to express my obligation to Keirle's exhaustive essay on rabies published in "Twentieth Century Practical Medicine," vol. xv. It has been a mine of information.

ever comes in his path. He eats unusual and unfit things, and refuses what ordinarily tempts his appetite. The bark is hoarse and muffled. Gradually, paralysis of the lower jaw develops. There is hyper-secretion of a thick viscid saliva, which drips from his jaws. He is thirsty and laps eagerly at water and fluids, but is unable to drink. Paralysis of the hind legs gradually develops, and the dog trots with a curious wobbly gait. The eyes are red and inflamed, and the face wears a distressed and distrustful expression. The paralysis spreads, involving the abdominal muscles, and finally the whole body, and the dog crawls off to some obscure place and dies. The whole course of the disease is less than a week.

This is a picture of the disease in its complete form. The first stage may be absent, and the dog may become suddenly furious, or the first stage may be followed directly by the third, giving rise, as I have said, to the rabid or paralytic type of the disease. In Detroit, contrary to the general experience, most of the observed cases have been of the paralytic form. This accounts for the few cases seen in man, notwithstanding the large number of rabid dogs in the city.

There are two points in which this description of rabies in the dog differs from the generally accepted idea. These I wish to emphasize. The first is that the rabid dog does not avoid water. On the contrary he is thirsty, and laps it eagerly. He cannot drink, however, on account of the paralysis of his jaw, and of the muscles of deglutition. Hydrophobia is a misnomer, when applied to this disease in animals. The second point is that the rabid dog does not froth at the mouth. Saliva is secreted in excessive quantity, and drips from his jaws because of the same paralysis that prevents his drinking.

In man the manifestations are somewhat different. At first there may be some pain at the point of the old bite,

which has long since perfectly healed, and may have been forgotten. There may be numbness and vague parasthesia along the course of the nerves coming from the point where the bite was inflicted. The patient feels a dread of some impending evil, and is irritable, restless, and much depressed. Soon, taking a glass of water to drink, he finds he cannot. The attempt to swallow causes most violent and painful spasm of the muscles of deglutition. Soon the mere sight of food or drink produces contraction of these muscles, and the patient dreads the very sight of water. He has periods of wild delirium, in which he struggles with and upbraids his attendants for their thoughtlessness and lack of attention. The delirium passes away, and he is filled with regret for his violence and abuse. He is tortured with thirst and begs for water, but when it is brought he turns away from it with dread and horror. The respiration is labored, and he suffers from a sense of oppression and suffocation. There may be a hypersecretion of saliva, which the patient spits about the room, sometimes in the faces of his attendants. The periods of delirium become more violent and frequent, then gradually grow fewer and less violent, and the patient becomes more and more comatose and finally dies.

The contraction of the muscles may be slight or severe. It may be limited to those of deglutition or it may amount to a general convulsion of great severity, of the clonic or tonic type. The inability to swallow is occasionally incomplete, and may pass off shortly before death. The patient may suffer from hyperesthesia, and a breath of air, or an unexpected sound may be sufficient to produce a violent convulsion. The last stage of the disease, that of paralysis and coma, may be absent, and the patient may die directly after a convulsion. The duration of the disease is usually between one and four days.

The period of incubation is much longer than in any other infectious disease—eight days to eight months in the dog, and fourteen days to eighteen months in man. One or two instances of an even longer period than this are reported, but are not considered well authenticated.

One more point I wish to emphasize before taking up the subject of treatment. If a dog is suspected of being rabid, *and is known to have bitten no one*, it should be killed at once. If, however, a dog has bitten any person, or any other dog, it should not be killed, but should be kept under observation for two weeks, for the following reason: The saliva of a rabid dog becomes infective from three to eight days before symptoms of the disease develops. The course of the disease is not over a week. If the dog is alive and well at the end of two weeks, no fear of rabies need be felt. If, however, the dog dies, proper measures can be taken to prevent the disease in the person bitten. *Never kill or allow to be killed a dog that has bitten anyone.*

For the developed disease there is no issue but death. There is no curative treatment. All treatment must be preventive. Immediate and thorough cauterization greatly reduces the danger. Cauterization to be efficient must be both immediate and thorough. The actual cautery is best. When it is not possible, on account of the extent of the wounds to cauterize thoroughly, antiseptic solutions and water as hot as can be borne (130° F.) may be applied. These hot applications can with benefit be repeated for as long a time as three months. In all suspicious cases the patient should be sent at once to one of the Pasteur institutes, and the dog should be watched. All cases in which the epidermis is broken, even if it be the merest scratch, should be subjected to treatment.

The preventive treatment of rabies consists of rendering the patient immune to

the poison by gradually increasing doses of the virus, or by introducing into the body some substance that will render the poison inert. In general there are three ways of accomplishing this result. First, we may inject the serum of some animal rendered artificially immune to the disease. Second, we may inject the virus directly into the body of the patient, beginning with virus diluted very highly, and gradually increasing the strength; or, third, we may begin with a much attenuated virus, and gradually inject a more and more active preparation. The first may be called the indirect method of conferring immunity, and the two latter direct methods, for it will be readily seen that if we inject into the patient the serum of an animal rendered artificially immune, we must first immunize that animal by the same process, whereby, in the second and third methods, we accomplish that result in the patient.

Pasteur's method of treatment—that of conferring immunity by attenuated virus—being, so far as I know, the only one available in this country, deserves a fuller description. The others may be passed with a mere mention.

The virus of rabies is found in greatest amount in the brain and spinal cord of the animal affected, particularly in the medulla. Pasteur found that if a rabbit be inoculated subdurally with a small bit of the medulla of a rabid dog, the rabbit would die at the end of a period of about fifteen days. He also found that if a second rabbit be inoculated in the same way with the medulla of the first rabbit, the second rabbit would die after a slightly shorter time than did the first; that a third rabbit inoculated from the second would die after a slightly shorter length of time than the second, and so on, until, after many successive inoculations, he was able to kill rabbits in six days, and that this period could not be shortened by further inoculations. This virus, capable

killing rabbits in six days, is the so-called "fixed virus." This is of the utmost importance, for it is necessary for the purposes of treatment, to deal with a virus of known virulence, as that is the only way to accurately determine the dose, and as it is always necessary to keep a supply of fresh virus on hand, after it has once been fixed, rabbits can be inoculated indefinitely without increasing its power. It was further determined that after the spinal cord of one of these rabbits has been dried over caustic potash at a temperature of about 72° F. for fifteen days, it becomes practically inert. Thus we can obtain virus of any degree of virulence from that in the fresh cord to the practically inert virus fifteen days old. A cord that has been dried for fifteen days is known as a "fifteenth day" cord; one that has dried for fourteen days, a "fourteenth day" cord; one that dried for six days a "sixth day" cord, and so on. The treatment consists of injecting, into the anterior abdominal wall of the patient an emulsion made by rubbing up a bit of spinal cord with distilled water. For the first four days the dose is 3 cc. On the first day of treatment a fourteenth day cord is used; on the second day, a twelfth day cord; on the third day, a tenth day cord; on the fourth day, an eighth day cord. On the fifth day two injections of sixth day cord are given at the same time. The dose is now 2 cc. for the next two days, as follows: Sixth day, fifth day cord; seventh day, fourth day cord. On the eighth day an injection of 1½ cc. of a third day cord is given. The dose is now 2 cc. daily until the end of the treatment. Cords dried for less than three days are not used, so on the ninth day of treatment an emulsion of fifth day cord is given; on the tenth day, fourth day cord; on the eleventh day, third day cord. Then on the twelfth day, fifth day cord is again used. The treatment continues in this way until the end of twenty-one days.

The dose is not modified with respect to the age of the patient.

There is sufficient material for many treatments in a single spinal cord, but it is necessary to keep always on hand cords of proper age: i. e., at least one cord that has dried for three days, one that has dried for four days, and so on up to fifteen days. In order to do this it is customary to inoculate two rabbits each day. Since we are using a fixed virus, two rabbits will die each day, and the spinal cords must be removed. The keeping up of a supply of cords alone is a large amount of work, and requires no small degree of skill. This work must be carried on uninterruptedly. From the day a Pasteur institute is opened until it closes, two rabbits must be inoculated daily. This is what makes the Pasteur treatment so expensive. It is work requiring constant attention and great care, and the outlay for the single item of rabbits and their feed is large.

One more point. No time should be lost in submitting the patient to this treatment, for the treatment itself requires three weeks, and two more weeks must elapse before immunity is complete. As the disease most frequently develops about six weeks after the bite, there is little time to spare.

(To be continued.)

Bacteria Per Cubic Metre of Air.—Dr. W. Wayne Babcock, in the *Brooklyn Medical Journal*, gives the following table, quoted from Miquel, by Roger: In the sea, at 100 kilometers from

the coast.....	0.6
Altitude of 2,000 meters.....	3.
Summit of Pantheon.....	200.
Observatory of Montsouris.....	480.
Rivoli Street (in Paris).....	3,480.
New houses.....	4,500.
The air of sewers of Paris.....	6,000.
Old house.....	36,000.
Hotel-dieu (hospital).....	40,000.
Pitié Hospital.....	79,000.

HYDROGEN PEROXIDE.

Usually in my country practice I carry an eight-ounce bottle of hydrogen peroxide in my satchel. I use the product of a manufacture that is not advertised in lay journals; I do not carry a trade bottle for patients to gaze at, for I do not believe in taking the laity into my confidence as to treatment. The reader will see that I never lose a chance of reiterating the statement that it is folly to tell a patient what he is taking. I always keep a medicine-dropper handy, and with its aid I use the hydrogen peroxide in a thousand situations.

The child with the suppurating ear gets its with the dropper; the diphtheritic membrane gets it with the spray; the chronic ulcer of the leg I treat by providing the patient with an atomizer full of the peroxide, to be used *ad libitum*. Every kind of a sore requires it, and, if the condition is at all suggestive of erysipelas, a painting with pure ichthiol. Hydrogen peroxide will lift gunpowder out of a wound on the foam, and it has a similar effect on all kinds of dirt. Diluted, I have used it as an eye-drop and as a wash for the newly born. Of all the ways of using this agent, the most serviceable seems to be the spray. In this way it can be handled economically and just at the point where we want it; the projecting force actually helps us to rapidly undermine the pus.

For suppurating gums and stomatitis, I use it in frequent half-drachm doses, and in the white tongue and sweet breath of blood poisoning it should be used internally and locally almost without stint. It has never been my ill-fortune to treat many obstinate cases of diarrhoea; possibly I use the sulphocarbonates and large doses of calomel too extensively to allow many, but I am inclined to think that hydrogen peroxide by mouth and in enema would be very serviceable.

This is one of the preparations in my

experience that is constantly extending its usefulness over a larger territory of practice.

C. E. BOYNTON, B. S., M. D.,
Los Banos, Cal.

Good Work In Ohio.—The Ohio State Board of Medical Registration and Examination recently revoked the licenses to practice of two physicians of Columbus found guilty of attempting to produce a criminal abortion with fatal result. In view of the fact that practitioners convicted of such malpractice too often escape easily at the hands of the Court, the action of the Board deserves the support of all reputable physicians and is an example worthy of adoption by other State Boards having the power to revoke licenses.—(*Pennsylvania Medical Journal*.)

Ipecac In Pneumonia.—Perreau has introduced the following method of treating pneumonia: one gm. of powdered ipecac is mixed with 100 gms. of mucilage and one teaspoonful is given every hour for about eight hours, care being taken to avoid vomiting and diarrhoea by lengthening the dose intervals when necessary. The object of the treatment is to deplete the lung and as a consequence modify its tissue so that microbic infection may be counteracted. Satisfactory results are reported, especially if the method is employed early in the disease.—(*St. Louis Clinique*.)

The *Medico-Legal Bulletin* publishes an account of a German court's order fining a druggist \$50 and his assistant \$14, for having dispensed a physician's prescription to the same purchaser about 2,000 times. The nature of the prescription is not stated, but we incline to the belief that it must have contained malt in some form, and that the court was only taking another way of getting some license-money out of the pharmacist.

International Medical Congress in Madrid.—The central committee of Europe having in charge the interests of the International Congress of Medicine, to be held in Madrid, April 23 to 30, has named the Voyages Pratiques of Paris as the official agency to make all arrangements for the transportation and lodging of those attending the congress, to furnish membership tickets, and to organize and conduct a series of tours through Spain. The Voyages Pratiques are authorized to make the bookings for express trains, sleeping cars, hotels, and private lodgings. The regular trains being few in number and always overcrowded, it has arranged for a number of special trains, but since places in these will be filled early, those who expect to attend the congress should make their applications as soon as possible, to insure accommodations. This is especially advised, owing to the extreme difficulties of travel in Spain, and the overcrowding and irregularities which may occur unless proper precautions are taken. The Voyages Pratiques are enabled to offer members the advantage of 50 per cent. reduction on the railways, for round trip tickets. In order to facilitate the arrangements of the American physicians and scientists who expect to attend the congress, and to centralize the correspondence in this country, the Voyages Pratiques have appointed the tourist firm, Dr. and Mrs. Howard S. Paine, of Glens Falls, N. Y., as their American representative, with full authority to act for them in all the capacities enumerated above. Address all inquiries for information to Dr. and Mrs. Howard S. Paine, 148 Ridge street, Glens Falls, N. Y.

Death-Rate In Guatemala and In New Zealand.—Guatemala, with a mortality of 41 in 1,000, is said to be the least healthful country in the world; while New Zeland has the lowest death-rate, 11 in 1,000.—(*Medical News.*)

Sarcoma of the Shoulder.—Dr. J. Alex. Hutchinson reported to the Canadian Medical Association an amputation of the shoulder for sarcoma at the joint, with a successful termination. There was a history of previous injury to the shoulder, followed by the development of a growth in the head of the humerus, accompanied by intense pain. An X-ray examination of the parts revealed the presence of a large growth which invaded the joint, and involved the scapula. The patient was in an extremely unsatisfactory condition for operation, and presented evidence of marked cardiac disease, but was nevertheless subjected to operation. The incision extended from the middle of the clavicle in front down over the pectoral regions to the lower part of the axilla, and behind, passing over the scapula down to meet the anterior incision. After severing the middle of the clavicle, the great vessels were ligated, the brachial nerves divided high up, the muscles divided and the scapula freed from its attachments. There was little hemorrhage and the wound healed readily. Microscopic examination of the growth showed it to be a mixed spindle and round-celled myeloid sarcoma.—(*American Journal of Surgery and Gynecology.*)

Nitroglycerine for Muscular Spasms. Dr. H. E. Randall, in *Prescription*, declares that nitroglycerin is one of our most valuable drugs, but it should always be used with caution, and with knowledge of exactly what it is desired to accomplish. In muscular spasms, as in hystero-epilepsy, puerperal eclampsia, tetanus, spasmodyc asthma, as well as in renal and gallstone colic, nitroglycerine promptly relieves some of the cases. In paroxysms of hysteria, with cold hands and feet, it acts like magic. The drug in hysteria is worthy of a more extended trial. The writer usually gives it in one one-hundredth or one-fiftieth grain tablets, repeated in five minutes if necessary.

DETROIT MEDICAL JOURNAL

A MONTHLY EPITOME OF
PRACTICE AND THERAPEUTICS

FRANK BURR TIBBALS, M. D., Editor

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Address all communications to 270 Woodward Avenue, Detroit, Michigan, U. S. A.

Vol. 2. DETROIT, MICHIGAN, FEBRUARY, 1903. No. II

MEDICAL LEGISLATION.

The upward trend of requirements for practice is well illustrated in the Nottingham bill, now before the Michigan legislature. This bill is designed to supplement and strengthen the existing medical law, passed in 1899.

The important features of the new bill are: A higher standard for students beginning the study of medicine; an examination of all applicants for registration as Michigan practitioners; the deprivation of Osteopaths of privileges granted them under the present act, and the exclusion of Canadian graduates who have not spent one year in an American medical college.

The avowed purpose of the bill is to promote relations of reciprocity with other states by adopting a standard as high as that of any of them.

We understand that the bill meets the approval of the practitioners of sectarian medicine, and also of the various medical colleges in the state; hence the principal opposition to the passage of the bill will probably come from the Osteopaths, who, while claiming not to practice medicine, appear to desire to do so.

The exclusion of Osteopaths from the ranks of medical practitioners is eminently just, until they meet in their

schools the four-year educational requirements for other practitioners. When they are educated as physicians should be, if they still prefer their "system" they have the same legal right to it as the Homeopath or the Eclectic. Some objection has been made to the portion of the bill relative to Canadian practitioners, which, to some, savors of retaliation. As a matter of fact, the standard of requirements in the Nottingham bill and those in the Ontario medical act are identical, except that Ontario requires of the graduate one year's experience, half of which may be with an authorized practitioner, the remainder hospital or post-graduate work.

Why, then, should there not be reciprocity between Michigan and Ontario, when the two standards are identical? But Ontario at present requires a year's attendance at one of her schools from every American graduate, according to Polk's Medical Directory of 1902.

The enforcement of the same provision in Michigan would lead either to a subsequent modification of both acts, on a reciprocal basis, or would send many Canadian students to Michigan colleges for at least a final year.

On the whole, the Nottingham bill is a long step forward, and it should be enacted into law without material modification.

THE VALUE OF MEDICAL SOCIETIES.

The question is often asked, of what value to the individual practitioner is membership in a medical society? We maintain that an active membership is of great direct practical value to the individual, from which benefit indirectly accrues to his brother practitioners and to his patients.

The average man swings his shingle to the breeze, equipped with ambition and hope, but with his brain overstocked with a mass of unclassified data, largely the-

oretical in character, needing ten years of practical experience to sort out the rubbish. To him the medical society is a post-graduate school, with the older men as teachers. He is stocked with new theories, they with experience, from the happy combination of which evolves the successful practitioner. He should therein find his friends and advisers and his incentive to earnest effort in the example of his confreres. Hence the medical society is an invaluable aid in developing the graduated *embryo* into the full-fledged *doctor*.

To the older practitioners the need and the profit is not less. He is busy in active work, with limited time for reading and study, and becomes a "back number" just as rapidly in the city as in the woods, but for the burnishing at his command in rubbing against his fellows. He can learn theory from the well-taught recent graduate and practice from the older man, just as he can in turn contribute from his experience.

Let it be understood that we are talking about *active* membership. The man who goes to listen, learns, but the man who takes part learns more, for the resumé of the literature or study of cases essential to the proper preparation of a paper, or intelligent discussion, helps directly the man who does it.

Another function of the medical society is the inculcation of ethical ideas. The condemnation on the part of medical societies of newspaper advertising, division of fees, criminal practices and other evils of this commercial age, deters many men from unethical acts, not through the mere fear of expulsion, but because they want the commendation and dread the condemnation of their associates.

As a matter of fact, society makes its own laws largely by the power of public opinion. Society condemns crime, drunkenness and immoral conduct, and more men are good because public opinion con-

demns evil than because they imbibed any innate goodness with their mother's milk or inherited a father's strength of character. And to this common law medical men are no exceptions.

Lastly, the medical society benefits the entire profession by the power of organization, on the "little drops of water, little grains of sand" principle, and we are about to obtain, in the near future, things heretofore impossible of attainment, through the organization of the profession now under way all over the country.

EDITORIAL NOTES

A recent issue of the *Philadelphia Medical Journal* contains one of the most screaming bits of humor that we have read in the medical press for some time. It is a piece of writing calling down opprobrium on the head of Mark Twain. An excerpt will show its nature: "But Mark Twain shows his weakness, both as a prophet and a critic, in what he says about the claim of Mrs. Eddy's religion to be the real thing. 'Its great offer,' he says, 'is to rid the race of pain and disease.' This preposterously impossible program seems to Mark Twain to be quite a practical business, and one in the achievement of which Mrs. Eddy's religion will have no doubt and no difficulty whatever. In other words, Mr. Clemens himself comes so near to being a follower of Mrs. Eddy that he has not critical insight enough left to see that her claim to be able to abolish disease is the gist of the whole humbug. He already says that Christian Science can abolish *four-fifths* of the disease that affects mankind! Clearly, Mark Twain is already four-fifths Eddyite, and of all the blatherskite he has ever written his latest is a little

the most senile." This is what Mr. Squeers would call "richness." Anyone with a healthy sense of humor who has read even a trifle of Mr. Clemens' crusade against Mrs. Eddy and her followers must appreciate it. It would seem that the writer in the Philadelphia journal has done what David Harum advised his sister not to do, and has caught cold in his sense of humor. "Blatherskite," indeed!

The last meeting of the Quarter Century Club was held at the Fellowcraft Club last month. The club is made up of men who have been practicing medicine for twenty-five years or more and the meeting in question took the form of the sixth annual banquet of the organization. Dr. Henry A. Cleland was master of ceremonies, and Dr. Justin E. Emerson and Dr. A. E. Carrier were the toastmasters. The committee in charge of the arrangements for the banquet was composed of Dr. E. L. Shurly, Dr. Leartus Connor and Dr. Justin E. Emerson, and they were voted a most successful triumvirate. Dr. Flemming Carrow, of Ann Arbor, was a guest of the club.

The following programme of toasts was presented: "Inability," Dr. Peter Klein; "The Present Time," Dr. George B. Russell; "Living," Dr. Leartus Connor; "Talking," Dr. H. A. Cleland; "Pride," Dr. E. W. Jenks; "Age," Dr. M. H. Andrews; "Passions," Dr. Johann Flintermann; "Dogs," Dr. E. L. Shurly; "Love," Dr. S. P. Duffield; "Labour," Dr. Robert A. Jamieson; "Cranks," Dr. David Inglis; "Circumstances," Dr. C. A. Devendorf; "Nymphs," Dr. Eugene Smith; "Thought," Dr. J. J. Mulheron; "Kisses," Dr. Daniel La Ferte; "Care," Dr. N. W. Webber; "Song," Dr. J. B. Book; "Happiness," Dr. Hermann Kiefer; "Friends," Dr. B. R. Hoyt; "Blushing," Dr. M. J. Spranger; "The Wise Man," Dr. H. E. Smith; "Silence," Dr. H. O. Walker.

One of the many examples of the way in which matters are exaggerated in America is shown in the statements made in the lay press about the vast sums of money gained by Dr. Lorenz in America. Some papers put it as high as \$160,000 and the general impression was gained that the trip to America was an exceedingly profitable one for the doctor. In a recent interview, however, he strongly refutes the claim that his trip had been materially profitable. He states that he got one fee of \$30,000 (presumably from Mr. Armour) and that his fees for four months in this country amounted to a like sum. His private patients, he says, gave most of their fees to the physicians who operated on them after attending one of the Lorenz clinics. This is quite possibly so; but Dr. Lorenz himself feels that his trip to America has been of very great advantage to him from a medical and an ethical standpoint, and he has expressed himself as being greatly pleased with the kindness which he was shown by everyone in America with whom he came in contact. He will return to Vienna well pleased with the trip and its results. He has certainly gained in reputation by coming here.

Lemon juice, we are gravely informed, will positively destroy typhoid germs in water. "One experimenter" so a dispatch reads, "dropped a little lemon juice into a culture tube containing typhoid germs. To his amazement he found that the acid shriveled up and destroyed the germs." Later on, the same dispatch says: "Dr. Asa Ferguson, a practitioner of London, has just published an article in which he gives the results of experiments made by European scientists. These experiments have demonstrated that various acids will destroy germs, but as the acids will destroy human beings as well, no good result is practicable from their use." It is a fact that can be

demonstrated that a sufficiently hot fire will destroy germs; and building a fire inside a patient who was suffering from germs might well result in the destruction of the germs. The annoying fact that the fire would also probably destroy the subject of the experiment militates against a physician's chances for trying this method of germ extirpation on any but very feeble patients.

Dr. Ferguson also recommends that all drinking water shall have lemon juice in it, to the extent of a drop or two. That is, he does, if he is correctly quoted. There seems to be something wrong somewhere.

Philadelphia has received substantial aid in the matter of research concerning consumption, in the shape of a gift of \$300,000 from Henry Phipps, of New York, formerly a partner of Andrew Carnegie. The money will be used to establish an institution to be known as the "Henry Phipps institute for the study, treatment and prevention of tuberculosis." The institute will be so endowed as to have an income of about \$35,000 yearly. The whole plan includes the raising of a fund of \$1,500,000 for endowment purposes. The announcement of the generous gift was made by Dr. L. F. Flick, president of the Free Hospital for Poor Consumptives.

One of the features which are attractive about a paternal government is the interest which it takes in the health of the public. The Belgian government has recently issued a circular, addressed to the public, and having for its object the prevention of contagion. A chapter on venereal diseases is of especial interest. The language is plain, but without offense, and the dangers of syphilis and gonorrhœa are unmistakably pointed out. It is the first thing of the kind ever done by a government, and it is regarded by neighboring nations as an important step

in the fight against venereal disease in European countries. Belgium herself has been none too free from the results of unregulated morals for many years.

Interest in research work in cancer seems to be constantly on the increase, particularly in the British Islands. One of the recent steps taken to combat the disease is the project of J. K. Caird, a wealthy manufacturer at Dundee, Scotland, who proposes to erect a cancer hospital at a cost of \$90,000. He has also made arrangements for the payment of \$5,000 a year for five years for carrying out original laboratory work of investigation.

An exchange prints some interesting, if not very cheering, statistics on the financial side of medical practice of medicine in the French republic. It states that there are 2,600 doctors in the French capital, and that of these forty make from \$40,000 to \$60,000 a year; fifty make \$20,000; fifty make from \$10,000 to \$20,000; two hundred make from \$6,000 to \$10,000; two hundred make from \$4,000 to \$6,000; seventeen hundred make an average income of \$725. In all France there are reported to be 16,000 doctors, whose gross incomes average \$725 apiece. Apparently they are little better off in France than they are in America.

At the annual meeting of the authorities of Harper Hospital, on the evening of January 12, it was announced that Mrs. John H. Avery had agreed to give \$10,000 for the erection of a new building for diphtheria cases, in memory of her mother, Mrs. W. L. Smith. The old diphtheria building will be used for measles. The sum of \$20,000 is given by the estate of Hiram Walker for aid in the maintenance of the Farrand Training School, and the John E. King estate gives

\$10,000 for the endowment of two ward beds.

Corporations Not Professionals.—It is generally conceded that in a majority of the states a corporation cannot be organized or chartered to do a professional business. This applies as well to the medical as to the legal profession. A recent decision in a case appealed from a justice court in Omaha, Neb., is of interest to the profession. The State Electro Medical Institute brought suit against one L. N. Platner for services and recovered a judgment for the amount in a justice court. The case was appealed and the finding reversed, because, in the words of the court, "As a corporation cannot practice medicine under the state laws, it cannot collect for its services."—(*Medico-Legal Bulletin*.)

Chloroform The Tape-Worm.—In the December number of *Southern Practice*, Dr. James M. Clopton says that more than eighteen years ago, while practicing in St. Louis, Mo., he was a victim of tape worm, and had been for several years previously, and resorted to all the then prescribed remedies without benefit. Dr. William Porter then prescribed Squibb's chloroform ʒiiij in a number of large size capsules, with directions to take one every few minutes until well under the influence. Have a medical friend with you to note effects, etc., and when sufficient have been taken to produce stupor, then take an active purgative, such as salts and senna. "Before night came, I was parted from my old enemy; and since that time I have had the pleasure of relieving several patients of this most obnoxious depraved company. In my opinion, if properly given, it will never fail to so stupefy the worm" that it will turn loose its hold on intestinal wall, and its expulsion is made easy. "I have never heard of a failure with its use" when given in the manner indicated.

Watch the Salicylates.—Scheyer in *Weiner Medizinische Presse* reports the case of a laundress who was given .5 gm. sodium salicylate five times daily in the treatment of an attack of acute articular rheumatism. After a week's treatment symptoms of an affection of the middle ear developed and persisted notwithstanding the suspension of the drug, resulting in permanent deafness, complete in one ear and partial in the other.

Sodium salicylate and quinine should be given with caution in large doses, especially to those whose middle or internal ear is abnormal in any degree or in any way.—(*Medical Review of Reviews*.)

A Finishing Touch.—The wit of the elder Dumas is well known, and a recent issue of the *Lancet* gives a striking illustration of it. Gistal, a physician of Marseille, was entertaining Dumas, and asked the author to write a sentiment in his autograph album. Dumas complied, as follows:

"Depuis que de docteur Gistal
Soigne des familles entières
On a demoli l'hôpital
Et l'on a fait deux cimetières.

The physician was immensely pleased with the first three lines, but the final one took all the wind out of his sails.

A Good Start Made.—Dr. E. F. Bashford, Assistant to Professor Sir T. R. Fraser, has been appointed Superintendent under the British Cancer Research Fund. Dr. Bashford, who has been working recently in Professor Ehrlich's laboratory at Frankfort, is acquainted with the cancer research work now being done in Germany, and will enter upon his duties forthwith. A special subcommittee on statistics is being formed, but the work of the general organization of the scheme is hampered by want of funds, as the sum as yet collected is only about £45,000.—(*Medical Review of Reviews*.)

NEW INSTRUMENTS & DEVICES

Mention of new instruments and devices in this department is entirely complimentary and articles illustrated are judged on their merits.

We invite manufacturers and physicians to send us matter suitable for publication under this head. A description of the device and an electrotype or half-tone with a base not greater than two and five-eighths inches should be sent.

Always mention the price of the article in question.

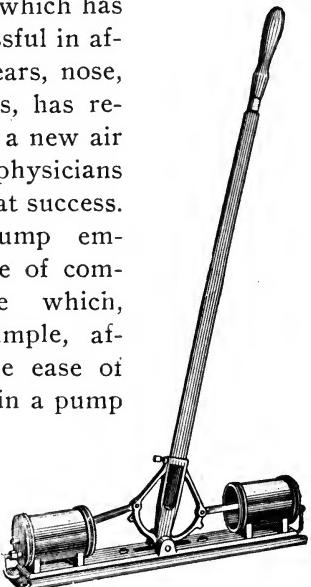
The management cannot undertake to return cuts unless postage for same accompanies the letter with which they are sent.

A NEW AIR PUMP.

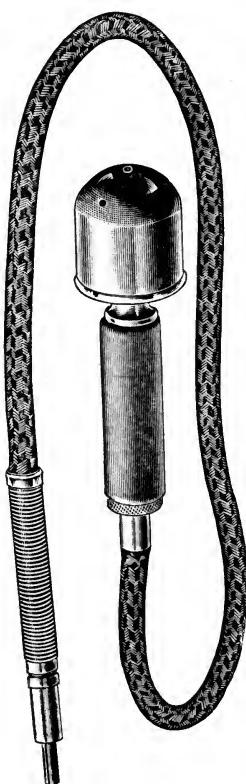
Dr. H. M. Dunlap, who, several years ago, first introduced the "vapor massage" treatment, which has proven so successful in affections of the ears, nose, throat and lungs, has recently perfected a new air pump, which physicians pronounce a great success.

This new pump employs a principle of compound leverage which, though very simple, affords remarkable ease of operation, even in a pump of large capacity, accomplishing equal results in the same length of time with less than one-third the effort required by the ordinary double cylinder lever pump.

Every physician who uses or contemplates using compressed air will be interested in this pump, as shown in accompanying cut.



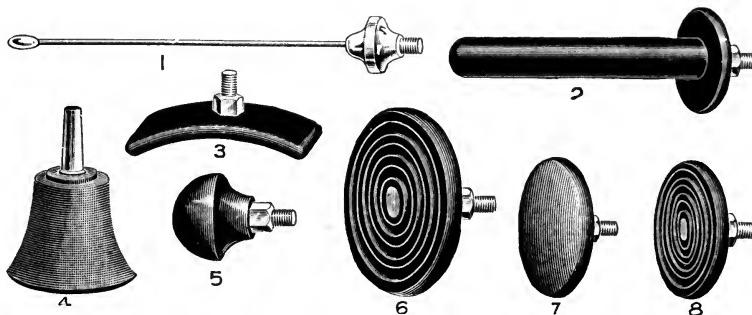
MASSAGE HANDLE AND ATTACHMENTS.



Modern practitioners are daily growing more and more in favor of vibratory massage, and therefore any new device which makes the application of such treatment simpler and more efficacious is likely to be of interest to them. We present herewith illustrations of some novel means of securing massage of the desired strength at any portion of the body. The massage handle illustrated is provided with a cable sheath and with a removable cap, which, when taken off, exposes a regulating device, by means of which the strength of the vibrations can be perfectly controlled, so that every degree of movement, from the most gentle to the most vigorous, may be secured. The cap is also fitted with attachments into which the various vibratodes may be fitted, in such a manner that they may be inserted so as to form a straight line with the handle or to form an angle with it. The vibratory motion itself is rotary, this having been found to be the most satisfactory method to pursue in the treatment of the mucous membrane. In abdominal massage, the handle is used as shown in the cut, without the necessity of any attachment at all. The handle, with all of the vibratodes shown below, except Nos. 4 and 6, is furnished at \$35.00, and the manufacturers sell a device by means of which the handle may be operated by a motor of any size for \$5.00. Vibratodes

Nos. 4 and 6, consisting of a soft rubber cone for face, head, etc., and a large corrugated hard rubber disc for abdominal massage, are furnished for \$1.50 and 75

Papier mache is the material of which the protectoron is made, and every particle of material of which it is constructed is treated antiseptically. The



cents respectively. Vibratodes of special shapes are also made by the same manufacturer.

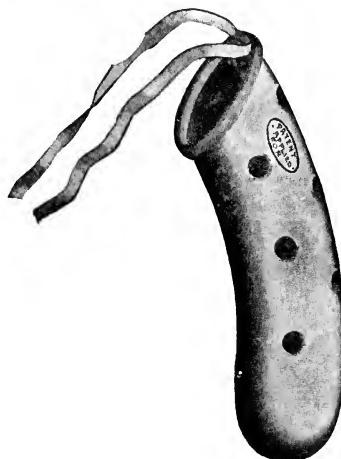
THE RICHARDS PROTECTORON.

This device is designed for the protection of the penis, while the patient is suffering with gonorrhœa, syphilitic sores, or other venereal diseases, and it is claimed for it by its manufacturers that it

device is a non-conductor of heat, and this fact renders it cool to the wearer. It is light and convenient, perforated to secure additional comfort, and retails for the sum of \$1.00.

HOOPER REST-SHEET AND STRAIT-JACKET.

Delirious, violent or insane patients are a source of unending care and watchfulness, as every physician and nurse who has had charge of such cases knows. The purpose of this device, which is one of the best that we have seen, is to so restrain the patient that constant attendance will be unnecessary—and for this purpose it is admirably fitted. The edges, where they come in contact with the body of the patient, are lined with chamois skin, as are the straps which confine the limbs, so that as little discomfort as possible is caused the sufferer. Down each side of the sheet are five side straps, to confine the edges to a bed, cot or surgical table, and once they are secured patients are unable to do any injury to themselves or their attendants. Exposure on the part of the patient is impossible, for an apron covers the feet and the straps at the head and sides of the sheet prevent the head being raised. The greatest care has been taken by the manufacturer to turn out a device which shall hold a pa-



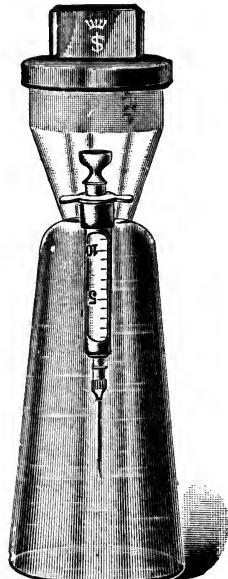
is the best thing of the kind on the market today. It certainly assures absolute cleanliness, a state of things which many physicians have found lacking in other devices for the same purpose, and its use has been recommended by a number of the leading physicians in this country.

tient securely, but which shall not injure him in any way.

Not the least attractive feature of this useful and even necessary device is its low cost. The complete outfit, ready to apply to the obstreperous patient, costs \$10.00.

IMMERSION BOTTLE.

This bottle is designed to be useful in any procedure in which the frequent use of the hypodermic syringe is called for, as in the treatment of hernia by the injection method, etc. Its peculiar shape per-



mits the syringe to be wholly immersed in an antiseptic fluid, and the advantages of this must be evident to the practitioner. The bottle is made of Bohemian glass, six inches deep, and is provided with a ground-glass stopper, so fitted as to render the contents of the bottle thoroughly germ-proof. Aspirator needles, and other small articles may be kept in an aseptic condition by making use of this bottle. The solution remains sterile indefinitely, and the container, being made with a wide base, is not easily upset. Among the many advantages which such a bottle offers is the one of low price. It costs \$1.00.

Eighth Annual Meeting of the Western Ophthalmologic and Oto-Laryngologic Association.—At the meeting of this society, to be held in Indianapolis, Ind., on April 9 to 11, the following program of papers will be presented: Ophthalmologic—Dr. Adolph Alt, of St. Louis, Mo. "Episcleritis;" Dr. J. A. L. Bradfield, of LaCrosse, Wis., "Keratoconus: Etiology, Early Diagnosis and Treatment;" Dr. J. E. Brown, of Columbus, O., "Some Experiences in the Operation for Complicated Cataract;" Dr. A. E. Bulson, Jr., of Fort Wayne, Ind., "Hysterical Amblyopia, with Report of Cases;" Dr. J. Elliot Colburn, of Chicago, Ill., "Clinical Experiences in the Management of Phoria Patients: Failures and Successes;" Dr. Lee Wallace Dean, of Iowa City, Ia., "Degenerate Ocular Changes Resulting from Consanguinity of Parents;" Dr. John A. Donovan, of Butte, Mont., "Electro-Cautery Treatment of Wounds and Ulcers;" Dr. George F. Fiske, of Chicago, Ill., "Series of Glaucoma Cases;" Dr. Ferd. C. Holtz, of Chicago, Ill., "On Some Points in the Operation of Cicatricial Ectropium;" Dr. Dudley S. Reynolds, of Louisville, Ky., "Blepharitis Marginalis;" Dr. W. S. Samson, of Lancaster, O., "Sarcoma of the Choroid;" Dr. E. O. Sisson, of Keokuk, Ia., "Rare Ocular Lesions in Scarlatina;" Dr. Hamilton Stillson, of Seattle, Wash., "The Influence of Environment on the Eye;" Dr. George F. Suker, of Chicago, Ill., "Paresis and Paralysis of the Muscle of Accommodation;" Dr. Cassius D. Wescott, of Chicago, Ill., "Retrobulbar Optic Neuritis;" Dr. Casey A. Wood, of Chicago, Ill., "Excision of the Tarsus in Certain Forms of Chronic Trachoma." Oto-Laryngologic—Dr. Wm. L. Ballenger, of Chicago, Ill., president's address; Dr. J. C. Beck, of Chicago, Ill., "Superheated Medicated Air in Diseases of the Nose and Ear;" Dr. Fayette S. Ewing, of St. Louis, Mo., "Progress in Otology in Fifty Years

Past;" Dr. Hal. Foster, of Kansas City, Mo., "Report of Cases of Laryngeal Paralysis Due to Aortic Aneurism;" Dr. M. A. Goldstein, of St. Louis, Mo., "An Unusual Case of Spontaneous, Bilateral Hemorrhage from the Ear;" Dr. George F. Keiper, of LaFayette, Ind., "Present Status of the Treatment of Mastoiditis;" Dr. Robt. Levy, of Denver, Col., "Middle-Ear Affections in Tuberculosis;" Dr. Eugene R. Lewis, of Dubuque, Ia., "Pseudo-Torticollis, with Abnormal Associated Movements of the Head and Eyes;" Dr. Charles E. Means, of Columbus, O., "Tinnitus Aurium;" Dr. T. W. Moore, of Huntington, W. Va., "Some Cases of Asthma Treated by Removal of the Middle Turbinate;" Dr. Edwin Pynchon, of Chicago, Ill., "The Principles of Rhinologic Practice;" Dr. James E. Schadle, of St. Paul, Minn. (by invitation), "Inflammatory Conditions of the Upper Air-Tract, As They Occur in the Northwest;" Dr. E. L. Shurly, of Detroit, Mich. (by invitation), "Remarks on Etiology of Hypertrophic Rhinitis;" Dr. O. J. Stein, of Chicago, Ill., "A Discussion on the Differential Diagnosis and the Treatment of Osteo-Sclerosis of the Mastoid Process;" Dr. J. A. Stucky, of Lexington, Ky., "Naso-Pharyngeal Fibroma—Exhibition of Photographs and Specimens."

Physicians May "Take the Veil."—The *Therapeutic Gazette* describes as follows a veil mentioned by Wenzel in the *Centralblatt fuer Chirurgie*: It is a "simple gauze veil which is to be worn during operations and which prevents the moisture from the breath, drops of perspiration, and particles from the hair and beard from falling into the wound.

"The veil is composed of a triple layer of narrow-meshed gauze, thirty-two inches long and twenty inches wide. A slit eight inches long is cut in the transverse axis of the veil at a distance of twelve inches from one end. A short

piece of tape is fastened to the veil at each end of this slit.

"The veil is applied by placing the slit opposite the eyes and carrying the long end up over the head and down the back of the neck, while the short end is permitted to fall over the nose, mouth and chin. The upper part of the veil is secured by tying the tapes back of the occiput, and the free ends of the veil are held in place by buttoning the collar of the operating gown over them. The veil completely encloses the head except at the opening for the eyes. It does not impede respiration, and is sufficiently thick to absorb all the moisture from the expired air. It is easily sterilized, and is so inexpensive that it can be thrown away after being used once."

Cause of Neoplasms in Malignant Growths Unknown.—We are not quite willing to go with the Harvard commission as far as some of their conclusions. We can readily see that Richardson's negative reslts do not prove that a parasite does not exist which resists cultivation on our known media, nor do we care, at the present stage of the investigation, whether the parasite is a blastomyces or protozoa. We are willing to admit that urotozoa-like bodies are found in cancerous tissue, but this fact does not establish the etiologic relation of these "parasites" to cancer. It may be readily conceived how various parasites may accidentally contaminate tumors which are exposed to the external air; or these parasites may occur as a secondary invasion and, perhaps, determine the greater rapidity of the growth and the cachexia. It is also possible that in certain cases the parasites form the source of irritation which excites the predisposed cells to anarchy, just as any other irritant may do; but what the primary cause of neoplasms in general and malignant growths in particular is, we are at present unable to say.—

(Dr. A. Robin, in *International Medical Magazine.*)

Roentgen Method In Cancerous Growths.—Four cases of disease of the breast, that represent four varieties of inoperable malignant tumors, also show the efficiency of this method. The most remarkable results were shown in a carcinoma that had been operated upon three and one-half years before. The right breast had been removed and a recurrence had taken place two years later in the line of the scar and in the left breast. There were numerous ulcerated areas along the scar, while the area over the sternum was indurated and ulcerated. The mass in the left breast measured seven and one-quarter inches from the inframmary fold to an axillary fold, the line passing through the nipple. All the indurated and ulcerated areas along the line of the scar and over the sternum have healed, and the tissue has become normal. The mass in the left breast has softened, and the measurement indicated has decreased over two inches.—(Dr. Charles Lester Leonard, in *International Medical Magazine.*)

Foreign Bodies in the Appendix.—At the Canadian Medical Association, Dr. James Bell, of Montreal, read a paper on this subject in which he expressed the opinion that appendicitis never depends on the presence of foreign bodies in the lumen of the appendix. There is little doubt, however, that when foreign bodies gain entrance accidentally into the appendix, they aggravate an otherwise septic infection. Among the foreign bodies which he has found in the appendix are, in two cases pins, in two cases seeds, in one case wood-fiber, in one case gall-stone, and in another case a fish-bone.—(*American Journal of Surgery and Gynecology.*)

The Index Medicus.—It is a pleasure to note that an *Index Medicus* is to be re-established and under such auspicious circumstances that its permanency is assured. The Carnegie Institution of Washington will be the publishers. The new publication aims to continue the former *Index Medicus*. It will be issued monthly and purposes to contain the titles in full of books, pamphlets, theses, contributions to co-operative works and original articles in journals, transactions of medical and scientific societies and the like; arranged under subject headings. It will represent the literature of the preceding month of medical publications, both at home and abroad, its issue being delayed sufficiently to allow for the arrival of foreign journals.—(*Brooklyn Medical Journal.*)

Colonist Tickets.—On the first and third Tuesday of each month until April 30, 1903, one-way second class Colonist tickets will be sold by the Chicago, Milwaukee & St. Paul Railway from Chicago to points in South Dakota, North Dakota, Nebraska, Kansas, Eastern Colorado, Texas, Oklahoma, Indian Territory and Southwestern Missouri, at about one-half regular rates.

During the same period round-trip Homeseekers' excursion tickets will be sold by the Chicago, Milwaukee & St. Paul Railway on the first and third Tuesday of each month, good to return within 21 days from date of sale, to many points in Iowa, Minnesota and South Dakota, North Dakota and other western and southwestern states.

For further information apply to any coupon ticket agent, or address Robt. C. Jones, Michigan Passenger Agent, Detroit, Mich.

An Easy Prescription—“Do you know what I can take for indigestion after dinner, doctor?”

“Yes. Pie.”—(*Yonkers Statesman.*)

BOOK REVIEWS

Progressive Medicine. A Quarterly Digest of Advances, Discoveries, and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and *Materia Medica* in the Jefferson Medical College of Philadelphia, Etc., etc.; Assisted by H. R. M. Landis, M. D., Assistant Physician to the Out-Patient Medical Department of the Jefferson Medical College Hospital. Volume IV. December, 1902. Diseases of Digestive Tract and Allied Organs: Liver, Pancreas, and Peritoneum—Anæsthetics, Fractures, Dislocations, Amputations, Surgery of the Extremities, and Orthopedics—Genito-Urinary Diseases—Diseases of the Kidneys—Physiology—Hygiene—Practical Therapeutic Referendum. Pages, 409. Lea Bros. & Co., Publishers, Philadelphia and New York.

This volume completes a series for the year which any physician would be entirely justified in keeping on the shelves of his library in that portion devoted to books which he looks at the most often. A successful physician must keep abreast of the times, and these four books will do much to help him to do this. Attention has already been called to the admirable work of editing that Hare and his assistant have done. The present volume fully sustains the estimate we have already placed on their work.

The contents of the December issue is as follows: Diseases of the Digestive Tract and Allied Organs, the Liver, Pancreas and Peritoneum, Max Einhorn, M. D.; Anæsthetics, Fractures, Dislocations, Amputations, Surgery of the Extremities and Orthopedics, Joseph C. Blood-

good, M. D.; Genito-Urinary Diseases, William T. Belfield, M. D.; Diseases of the Kidneys, John Rose Bradford, M. D., F. R. C. P.; Physiology, Albert P. Brubaker, M. D.; Hygiene, Charles Harrington, M. D.; Practical Therapeutic Referendum, E. Q. Thornton, M. D.

A Manual of Dissection and Practical Anatomy, founded on Gray and Gerrish. By William T. Eckley, M. D., Professor of Anatomy, and Corinne B. Eckley, Demonstrator of Anatomy in the Medical and Dental Departments of the University of Illinois. One octavo volume of 400 pages, illustrated with 220 engravings, 116 of which are colored. Cloth, \$3.50 net. Lea Bros. & Co., Publishers, Philadelphia and New York.

For the student who wishes to provide himself with a detailed guide for dissection, and for the surgeon who desires to review the anatomy of any region, this book will be found admirably suited. It has been written in such a manner that it may be used with either Gray or Gerrish, and the illustrations found in this manual are largely taken from the works of these two standard authors. The engravings are large-sized, and colored plates add much to the attractiveness of the book as a publication and to its usefulness as a guide.

Recognizing that tabulation is one of the most acceptable methods for the clear and systematic presentation of anatomical data, the authors have arranged tables for each of the divisions of the body treated in the text, with the result that a clear and easily understood exposition of nerves, muscles, veins, arteries and so on is given. Careful editing has reduced the size of the book considerably, without leaving out the essentials; and the whole work has been done with great care, to the end that a satisfactory book might be prepared.

Medical Microscopy. Designed for Students in Laboratory Work and for Practitioners. By T. E. Oerth, M. D., Professor of Histology, Pathology, Bacteriology and Clinical Microscopy, Medical Department, University of Georgia. With 131 illustrations, some of which are colored. Pages, 350. Price, Cloth, \$2.00 net. P. Blakiston's Son & Co., Publishers, 1012 Walnut St., Philadelphia, Pa.

Every beginner in the important study of microscopy will find much interest in this book. The author has reduced the text as much as possible without leaving too much to the imagination, and he has avoided giving too many methods for the student to pursue in carrying out a given procedure. In this way the student's mind is free to grasp the important things, without being hampered by a mass of detail which may prove, to a large extent, useless. The comparatively recent attention which is being paid to laboratory work by our schools and colleges makes it reasonable to suppose that there must be many in the profession who are not over well equipped for work with the microscope, while the necessity of a knowledge of the microscope for the modern practitioner is growing every day.

Oerth begins with the first principles, and he gives a careful description of each piece of apparatus and each point of technique involved in the scientific use of the microscope in medicine. The illustrations are good, and the tables of stains, and so on are excellent.

Lea's Series of Medical Epitomes. Schalek on Dermatology. A Manual of Skin Diseases for the Use of Students and Practitioners. By Alfred Schalek, M. D., of Rush Medical College, Chicago. One handy 12mo Volume; 225 pages and 34 Illustrations. Cloth, \$1.00 net. Lea Bros. & Co., Publishers, Philadelphia and New York.

This is another of the handy little books in this series, which is edited by Dr. V. C. Pedersen. Schalek has crowded a great many interesting facts into his little book, arranging the diseases alphabetically for greater convenience and condensation, and taking up the etiology, symptomatology, course, treatment and prognosis of each. A number of illustrations that really illustrate many of them from photographs, are of great assistance. A number of questions follow the description of each disease for the use of the student, in order that the chief points of the text may be made emphatic. The series is undeniably convenient and, for the size of the books exhaustive. We can recommend them

The Mattison Method in Morphinism
By J. B. Mattison, M. D., Medical Director, Brooklyn Home for Narcotic Inebriates. Price, \$1.00. Published for the Author by E. B. Treat & Co., New York, 1902.

This little monograph is dedicated to Dr. Joseph Parrish, who first directed Dr. Mattison's attention to the work in which he has been interested for the past thirty years. It contains a description of the author's methods in treating morphine drunkards.

Promptness In Operation For Appendicitis.—The mortality in appendicular inflammations if operated early, say within twenty-four hours from the onset, is almost nil, and it must be a rare circumstance indeed when perforation occurs much earlier than this time. Operation performed at this time will usually result in an uneventful recovery and do away with the protracted convalescence which inevitably follows in the train of a suppuration and a drain.—(John Bruce Harry, M. D., in *Annals of Gynecology and Pediatrics.*)

THE DETROIT MEDICAL JOURNAL.

VOL. II.

MARCH, 1903

NO. 12.

STARVATION AS A THERAPEUTIC AGENT.*

By CHARLES DOUGLAS, M. D.

Starvation is popularly understood to be a condition of suffering due to the absence or want of food in healthy or sick individuals. As an incident in the punishment of the healthy or as a part of the regimen in the treatment of sick individuals its history dates far back beyond the period when the word was first used by Earl Melville, in 1775, while speaking on American affairs in the English parliament.

The application of the idea in this paper is not strictly in accordance with the true sense of the word as popularly used, but in the minds of many patients it has that significance, and in their physical sensations frequently this impression is endorsed. In many other patients for whom this regimen is necessary, starvation does not give this mental impression nor do the physical sensations give those feelings of suffering which the absence of food often gives to the ordinary healthy individual. True it is that in some classes of patients this sense of starvation is acute to the patient, but to the skilled physician it appeals rather as an abnormal sensation, due to irritation of the mucous membrane of the gastro-intestinal tract in diseased or over-worked condition, other than the true healthy desire for food.

All physicians are familiar with the necessity for restricting the food in many forms of disease, as they are also familiar

with the necessity of feeding liberally many other forms of disease. The object of this short essay is to draw attention to this therapeutic agent, starvation, in a practical way, and thus look at its use and the results obtained when this measure is carried to a somewhat extreme degree, or more properly speaking, to a degree demanded by the clinical condition and the physiological necessities for perfect repair of the parts overpowered by disease. In order to do this clearly it seems best to cite cases of different kinds in which this agency may be applied with benefit.

Selection of Patients.

The selection of patients requiring starvation for a time opens up a very wide field indeed, inasmuch as we find them of all ages and the sicknesses of a very wide range in character. To the casual observer there is very little similarity in these sicknesses or reason why they should be amenable to the same treatment. When we consider the anorexia usually produced in all acute febrile diseases, and also the direct range of its intensity with the height of the fever, we see at once how nature follows a common law of lessened necessity for food in all acute febrile disturbances. It is well for our patients always when we recognize nature's demands as thus expressed in those with ordinary healthy digestive organs; and also, more especially, when we remember her law in those with unhealthy or overworked digestive organs when suffering from acute febrile dis-

*Read before the Wayne County Medical Society, Feb. 19, 1903.

turbances. Especially in this latter class it is necessary to apply this starvation regimen, as these patients very commonly suffer from an increased craving for food rather than the anorexia which should accompany the condition. In other words, the physician should always apply this regimen when he knows that the clinical condition of the patient prevents perfect digestion of the food and consequently if allowed it will add another source of high temperature; and consequently a mixed infection or toxæmia will be the result, with the difficulties of diagnosis and treatment materially increased.

As it seems to the writer that this condition will be best understood and most easily seen in individual cases, we will look at a few of them as seen in daily routine work.

Cases.

Miss M. M., returned from a boarding school in a southern city after the spring term closed. She was eighteen years old and her family noticed that she was complaining unusually of the heat, although the season of the year, the cool home and the broad shady lawn did not warrant this continual lament. I was asked to call on her, as they thought she must be sick. She showed marked typhoid symptoms, with a temperature of 104° , and was treated accordingly. A very limited liquid diet was allowed, but the stools showed indigestion and continued in the same loose, foul, watery condition in which I first found them. The diet was very much reduced with corresponding improvement in the digestion, but the stools, although less frequent, remained of the same foul, watery character. Changes in the diet gave patient improvement in digestion and stools, but never gave satisfactory results. Medication, though varied, seemed to have little effect. This condition continued with varying remissions for several weeks, until

the continued high temperature, imperfect nutrition and loose, foul, watery stools, made me apprehensive of the result. A consultation with two other physicians gave us little advantage other than their kind advice and encouragement, as the patient was not benefitted by the changes we made in the diet or the medicinal treatment. As the case was now nearly hopeless at the end of six weeks and the temperature running constantly over 104° , with food passing in the stools always, I decided to cut off all food and give brandy only. This regimen I continued for nine days and had the satisfaction of seeing the temperature fall steadily from over 105° to less than 103° . The digestive tract became quiet, demanding assistance every three or four days in order to have any stool. This patient could not take milk at any time, even in the smallest quantities, without its acting as a laxative, and she recovered at the end of eleven weeks without any. No milk could be digested after the first two weeks, and every effort to give even a tablespoonful resulted in loose, foul stools. Improvement in this patient dated from the era of nine days' absolute starvation, during which the temperature fell from 105° to less than 103° .

Another case of typhoid was:

J. C., aged four years, an only child, sick two weeks. He also had the thin, watery, foul stools for ten days and slimy, bloody stools for three days before I saw him. The temperature ranged from 105° to $103\frac{1}{2}^{\circ}$. Reduction of the diet in this case gave improvement in digestion, but absolute starvation was requisite before the watery stools could be entirely removed. This child was given only a diluted whiskey for two weeks, all food being removed for that time. The improvement in all the symptoms was marked and continuous during the food starvation, and careful addition of liquid food was well borne afterwards. This child

continued to improve steadily and was convalescent in six weeks.

In both of these cases the products of imperfect digestion acted at least in a two-fold manner. Those that were absorbed into the blood-current through their toxic effects increased the fever and delirium, and those that were not absorbed were so strongly irritating to the mucous membrane lining of the stomach and bowels that the patient's strength was rapidly depleted through the loss of serum in the liquid discharges. The decided and continuous reduction of the temperature after all food was stopped, in the two cases above, went to show that the original fever infection was supplemented by another fever infection, or toxin, due to the imperfectly digested food.

Nephritis.

R. D., an infant of nine months, was fed during the first six months with condensed milk. Owing to the unequal way in which the food was given the infant had numerous attacks of indigestion, with fever, vomiting and disturbed bowels. The mother was always in the habit of stopping the food during these attacks, and when all disturbance had passed away she resumed feeding, on the same principle as before, paying little or no attention to adjusting the food to the amount of the digestive secretions. At six months the condensed milk became so irritating that the mother changed to a proprietary food, containing no milk. The improvement was most marked, as the child grew fat on the starch, sugar and albumin of the new food. So marked was this that the mother became alarmed at times and reduced the food, and even stopped it occasionally for part of a day. Influenza was prevalent among infants when this child was nine months old, and he contracted it. When I saw him the larger tubes were involved and he was coughing very much like other infants

of his age. The lung tissue was not affected. The temperature was 104° and the child was very nervous and wakeful, making me apprehensive of convulsions. A bromide and chloral mixture was given, after a free laxative and cold baths, and all food was prohibited. Cold drinks were encouraged. A sample of the urine showed extreme albuminuria. The mother complained loudly of the foul odor emanating from the urine, but this passed away in a few days. Cold bathing as demanded by the thermometer was continued, together with saline laxatives; but no food of any kind, liquid or solid, was allowed until the fever had entirely disappeared and the urine showed no trace of albumin. This regimen demanded twelve days of absolute starvation and several days of very little food after that, in order to guarantee safe convalescence. For several days during this sickness this child could not open its eyes on account of the great oedema of the face and eyelids. So fat and full was this child at the beginning of this sickness that he did not look emaciated at the end of it, and no one would suppose that he had not been well fed for these two weeks of his illness.

I am convinced that any method of feeding in this case would have been fatal to the infant. So overcharged had the kidneys been by the surplusage of waste and poisonous products of food for weeks and months previous to this sickness, that the kidneys were necessarily congested always in order to perform the enormous duties imposed upon them. The addition made in waste urinary products by the first few febrile days of the influenza was more than these organs could eliminate and nephritis with albuminuria was the result. To the writer's mind, absolute starvation gave the only chance for recovery.

I was called to see a little girl twenty months old, in convulsions, whom I had

never seen before. Her father worded the telephone message as follows: "Tell the doctor there is no chance of recovery, as the child is dying, but we would like to have him see her; it would be a satisfaction to us." I found another well-nourished child, but one who had been suffering from nausea and vomiting, with high temperature, for eight days. Her previous starch and milk diet had been overfed, thus causing the nausea and vomiting. A nitrogenous diet of beef-tea and liquid peptonoids had been used for a week before the convulsions supervened. The high temperature, convulsions and general oedema demanded a rapid emptying out of the body of all toxic and waste products, and particularly a complete and absolute starvation for the time being, to prevent any fresh load being placed on the already overloaded and inflamed kidneys. Albumin was present here also in large quantities. Saline laxatives, with starvation, secured a recovery in two weeks. She showed little physical effect from this starvation regimen. In this case I felt that the liquid peptonoids and beef-tea were the cause of the nephritis and convulsions, inasmuch as this type of food is particularly difficult for the kidneys to eliminate and should always be avoided during a febrile condition in overfed children, as their kidneys are always severely tried by the superabundant waste products given them to eliminate.

Gastro-Enteritis.

E. B., an infant of four months, was suddenly attacked with gastro-enteric symptoms, showing frequent stools fermented in character and containing much mucus. She had been fed by a wet-nurse who had been taken sick. The changed character of the milk from the wet-nurse was the direct cause of the infant's sickness. All nursing was prohibited, and no other food given for five days, when, the nurse being convalescent and the milk

well drawn out by a breast-pump, the infant was again put to the breast and no more digestive disturbances followed this better quality of milk.

Pneumonia.

Nellie F., a little girl of seven years, was stricken with a very severe diarrhoea and vomiting. She had a temperature of $104\frac{1}{2}^{\circ}$, respirations over fifty, and an annoying cough. Auscultation showed mixed dry and moist râles. Here was a case of broncho-pneumonia where the infection had checked the digestive processes. Cool bathing, to control fever, and starvation until recovery was established in ten days, with complete resumption of the digestive secretions, made the sum total of the treatment. She made a rapid recovery.

Scarlet Fever.

John S., aged ten years, was stricken with foul diarrhoea and vomiting, with high fever. On the second day his face showed a scarlatinal rash. The disturbance of the alimentary canal continued, with strongly-marked toxæmic symptoms, showing stupor and great drowsiness. As nature indicated by the foul discharges a marked decomposition of food rather than a digestion thereof, I followed her instructions and prohibited all food until the desquamative period was well established, a period of eight days. There was little other treatment demanded or needed, as the temperature soon fell within safe limits, all diarrhoea stopped and he made a good recovery.

F. C., an infant of five months and hand-fed, was taken with very severe vomiting and loose, watery stools of a very foul character. This infant was hand-fed from birth and had grown and thrived so well that its grandmother, who was rearing it, thought it safe to increase the food in order to make a big, fat baby of it. The trial of more food than there was digestive fluid to convert proved disastrous and this sickness followed. Com-

plete absence of all food was ordered at once. So great was the sickness that friends thought the infant dying on two different nights. In the daytime it certainly looked as if death might follow the sickness. After starving from all food for eight days, and all diarrhoea having ceased, it was considered safe to again feed in small quantities. He made a rapid recovery and is now strong and fat, growing rapidly.

Conclusions.

These cases might be multiplied indefinitely in any busy physician's round of patients. The few cases selected from patients of wide divergence in years, and sicknesses not allied to each other, go to show the large field in which starvation may be used as a therapeutic agent with good success.

959 Jefferson Avenue.

RABIES.* (Continued.)

The Diagnosis of Rabies by Animal Inoculations.

By JOSEPH SILL, M. D.

The cause of rabies is not known. So closely, however, does this disease resemble in its characteristics and behavior, those diseases whose known cause is microbic, that I think we are justified in assuming that it too is dependent on some microscopic form of life as its prime factor.

The following are some of the facts leading us to this conclusion:

The disease can be transmitted from animal to animal indefinitely.

A minute quantity of virus entering the body is sufficient to cause the disease, but the symptoms develop only after theapse of a considerable period of time, and sufficient virus can be obtained from an animal so inoculated, to produce the disease in many others, showing that the poison must multiply in the body. It is true that this incubation period is longer and more variable than in any other infectious disease; varying from eight days to eight months in the dog, and from fourteen days to eighteen months in man. This difference from the other infectious diseases is one of degree rather than kind, and can be explained by the supposition that we are dealing with an organism of very slow growth.

The ordinary germicides, such as heat, ichloride of mercury, permanganate of

potash, and carbolic acid destroy the virus. Like the bacteria, the virus is attenuated and finally destroyed by desiccation.

Rabies has never been known to originate *de novo* in man, and although it is of course impossible to always get a history of previous inoculation in animals, we are justified in assuming that it is never of spontaneous origin.

Such reasoning as this is all we have to rely on in determining the cause of rabies. Its discovery has from time to time been announced, but always on insufficient evidence. Pasteur thought for a time that he had isolated the bacillus of rabies from the saliva of a child that had died of this disease. He finally determined that the disease produced by this bacillus was a septicemia.

"A. Bruschettini, of Turin, claims to have discovered the cause of rabies in a small, short, thick bacillus with a clear zone in the center. A bacillus of this description may be found in the medulla of rabid dogs, and this grown in emulsion of the brain, removed, and regrown to the fifth generation is claimed to have produced rabies in sub-dural inoculations of rabbits, and the brain matter of these to have in like manner produced this disease in other rabbits.

"G. Nemmo, of Rome, claims to have discovered the cause of rabies in a series of blastomycetes from the brain of experimentally rabid rabbits, also from the brain of a child that had rabies from a dog bite. This organism intra-peritoneally injected into guinea pigs in eleven to twenty days causes paresis of the hind limbs, extending rapidly, and death in about twenty-four hours, often preceded by clonic convulsions. The virus from the abdominal cavity produces some symptoms in other guinea pigs. Dogs injected subdurally or subcutaneously become thin in seven to eight days, snappy, foam at the mouth, and are paralyzed in the limbs. This disease could be transmitted from dog to dog, but not to guinea pigs."—(Gorman-Sims Woodhead.)

"Both of these investigations cannot be right, and neither has received general scientific confirmatory demonstration and acceptance. The bacillus described by Bruschettini is like that of rabbit septicemia, except that it is coarser, which the bacillus of rabbit septicemia also becomes when grown in certain media. Many of these bacilli with clear centers and bipolar staining are decomposition organisms, the clear center being a gas vacuole, and sometimes a surrounding clear space of like nature deceptively resembles a capsule. It has been suggested that rabies is a modified septicemia with a predilection for the nervous system. The writer has never been able, except in the case of one rabbit to get a prolonged incubative stage like that of rabies in experiments with septicemia virus; moreover, in this case all the symptoms so characteristic of rabies were not present."—(Keirle.)

There are several reasons why we might fail to find a microbe of rabies. The first is, of course, that there is none. This in the face of the known facts concerning the disease seems to me an untenable supposition. Another reason is

that none of the methods of staining at present in use is efficient to demonstrate this particular organism. Another is that in our search for this organism we are confronted with the same difficulty as when we look for the tubercle bacillus in urine; that is, the presence of the organism in exceedingly small numbers. The long incubation period—the apparently slow multiplication of the virus renders this a possibility. Again, the microbe—and I use this term advisedly, meaning merely some microscopic form of life—may, like the tetanus bacillus, be present only at the point of inoculation. Finally, it may be so small that our present optical instruments are not adequate to demonstrate it. Still, I see no more reason to doubt that rabies is a microbial disease than that small-pox is one.

The pathological changes seen in rabies are not characteristic, and seem wholly inadequate to account for the symptoms manifested by those afflicted with this disease.

The most interesting and important changes occur in the central nervous system. There is more or less severe congestion of the meninges; there may be small subdural and pial hemorrhages. Especially in the medulla and upper cord we find hyaline degeneration of the vessel walls, interstitial hemorrhages and collections of leucocytes about the vessels and central spinal canal. These are the so-called "rabid tubercles," considered by Babes to be characteristic of the disease. These changes are more marked in the anterior horns. There may be swelling of the medullary sheaths and some degenerative changes in the nerve fibers. Ravenal and McCarthy claim to have found diagnostic changes in the ganglia of the central and sympathetic nervous systems, especially in the ganglia of the celiac plexus. These consist of an increase of the endothelial cells of the pericellular capsule and a replacing of the

nerve elements by endothelial cells. On the other hand, Spiller has noted similar changes in a case of endothelioma of the Gasserian ganglion and in a case of Landry's paralysis.

In addition to the changes in the nervous system we find hyperplasia, granular degeneration and ecchymoses of the lymph glands. Those about the head and neck are swollen. The salivary glands, especially the submaxillary, show a number of small granules, closely packed, sometimes in rows and sometimes in a radiating arrangement, and following in general the course of the vessels. These have been thought to be the vehicle of the transmission of the poison, but are probably the result of degenerative changes. The mucous membrane of the mouth, throat, esophagus and stomach may be swollen and intensely congested. This is probably due in part in animals to the unusual and irritating things such as hair, straw and bits of wood swallowed during the disease. There are congestion and inflammation of the kidneys, with albuminuria, and often glycosuria. Indeed Rabieau and Nicolas found glycosuria so often in animals experimentally inoculated that they consider its presence of diagnostic value. They say that Fehling's solution is not available for determining the presence of sugar on account of other reducing substances in the urine, consequently they use phenylhydrazin. They bespeak a careful following of their technique, which is described in the original article, but is not given in the review to which I have access.

The inoculation, for diagnostic purposes, of animals with material taken from other animals suspected of having died of rabies, is by no means a new procedure, and I want to disclaim any originality in the work I have been doing at the Detroit Clinical Laboratory. I have simply carried out a perfectly understood procedure, and arrived at results that

could have been foretold, granting that the material I worked with was what it was supposed to be. The whole question was one of diagnosis, and failure would have demonstrated faulty technique rather than a mistaken theory.

Experimental inoculations have been made in several ways. Various secretions and organs of the body have been used, and these have been introduced into the animal in a number of ways. Most of these deserve only passing notice, for they have proved unsatisfactory in practice, and uncertain in results. Among the materials used for inoculation experiments may be mentioned the saliva, the substance of the salivary glands, the kidney, the adrenal bodies, the milk, the blood, and the central nervous system, especially the medulla.

The methods of inoculating have been even more varied than the materials used. They are: Intra-cutaneous and subcutaneous inoculation; inoculation of the conjunctiva and the mucous membrane of the nose and the genitals; intra-peritoneal injection; inoculation of the anterior chamber of the eye; subdural inoculation; inoculation into one of the peripheral nerves; intra-venous inoculation; intra-cerebral inoculation; inoculation by lumbar puncture; inoculation through the foramen magnum and through the optic foramen.

As I said, most of these methods have proven unsatisfactory and have been cast aside. Intra-venous inoculation has been followed by some positive results in dogs and rabbits, but according to Saltier confers immunity in horses and ruminants.

Inasmuch as the disease is spread almost entirely by the saliva, inoculation of this secretion by some method would seem to be the most natural way of producing the disease experimentally. Inoculations with saliva have proven unsatisfactory, however, because it contains bacteria in large numbers and variety

which, as a rule, cause the death of the animal before the symptoms of rabies develop.

The methods now in use, although differing considerably in detail, have a common object in view. This is the bringing of some part of the central nervous system—preferably the medulla—of the supposedly rabid animal into direct contact with the central nervous system of the animal to be inoculated. As subdural inoculation is the method in most common use, I will describe in detail the technique I have carried out.

In order to guard against septic meningitis, the whole procedure must be carried out with as near an approach to perfect asepsis as is possible when working with animals. At every step we must guard against infection with the ordinary bacteria.

The medulla of the supposedly rabid animal is first removed. During this process great care is taken that everything with which the medulla comes in contact, from the instruments with which it is removed from the cranial cavity to the flask that finally receives the emulsion, is thoroughly sterilized by moist or dry heat. The skull is first bared, and the skin flaps, the muscles and ears are cut off to get them out of the way, and to prevent their serving as a possible source of infection. The head is now thoroughly cleansed with strong bichloride of mercury, and then dried with a sterile towel to remove the excess of the antiseptic. With sterilized saw and bone forceps the skull cap is removed. From this point we must depend on asepsis rather than antisepsis, for we must not allow the medulla to come in contact with any antiseptic. After a careful washing and disinfection of our hands we remove the brain with sterilized instruments, cutting the cord as low down as possible. The medulla is now placed in a sterilized covered dish.

After another washing and disinfection

of our hands, we proceed to the making of the emulsion. This is done on a table rendered as aseptic as possible by scrubbing with a strong bichloride solution. A small piece of the medulla, 1-2 cubic centimeters, is placed in a sterilized mortar and thoroughly broken up; 10-15 c. c. of sterilized water is added and the whole rubbed up until a milky emulsion is formed. This is filtered first through cotton, then through filter paper, and is finally received in a sterilized flask stoppered with a sterilized cotton plug.

This completes the preparation of the material. The next step is the inoculation of the rabbits. This operation must be carried out with as careful attention to asepsis as was the preparation of the emulsion. For the inoculation a point is selected just posterior to a line drawn between the center of the rabbits' eyes, and far enough to one side of the median line to avoid the longitudinal sinus. The operative field is shaved and disinfected, and the rabbit etherized. An incision one centimeter long is made in the scalp, and a shorter cut is made in the periosteum. This is stripped from the skull for a small space, and with a dental engine and burr a hole about 2 mm. in diameter is made through the skull. Through this opening about five drops of the emulsion is injected beneath the dura with a hypodermic syringe. The scalp wound is closed with a single stitch and sealed with collodion, and the operation is complete. On account of the probable loss of some animals from septic meningitis in spite of all precautions, several are inoculated.

By the method just described I have operated on three series of animals numbering in all 25. Of this number I have lost two from causes attributable to the operation. One of the two died from ether narcosis before the operation was completed; the other died from shock within a few moments after the completion of the operation.

The rabbit shows symptoms in about 15 days. It sits "hunched up" perhaps, with its ears dropped back on its head instead of erect. It avoids its companions, and seeks out the way places and the dark corners of its cage. It shows a disinclination to move, and only a hard push will induce it to change its position. When it does move; it uses its hind legs awkwardly, and shows a beginning of paralysis of those extremities. This becomes more and more marked; the abdominal muscles become involved, and the belly, losing their support, rests on the floor. The paralysis soon extends to the forelegs, and the animal lies sprawled out on its belly, or helpless on its side, and dies in a position of opisthotonus. The course of the disease is 1-3 days.

On Friday evening, September 6, an English setter dog was brought to the laboratory. It had that day died, and five days previously had bitten a boy. Dr. Brenton, who had seen the dog before death, made a probable diagnosis of rabies, but thought poisoning a possibility. As soon as preparations could be made, the dog's medulla was removed aseptically. The spinal cord, stomach, liver and kidneys were also removed. The post mortem changes were as follows:

The meninges of the brain and cord showed intense congestion. The mucous membrane of the esophagus and stomach was much swollen, and intensely hyperemic. The stomach was packed with hair, straw, and other foreign substances. It contained no food. The kidneys were markedly congested. Microscopically the cord showed interstitial hemorrhages, and the so-called rabic tubercles. These changes were more marked in the upper than in the lower part of the cord.

Careful examination of the stomach, liver and kidneys by Dr. Stephenson failed to show the presence of any poison. This result was confirmed by the result of the animal inoculations.

On Saturday, September 27, a series of 12 rabbits was inoculated with an emulsion of the dog's medulla. Results were as follows:

One rabbit died from ether narcosis; three died from gastro-intestinal disturbance; one from broncho-pneumonia; one disappeared, and six died, having shown the symptoms and post mortem changes of rabies. The incubation period varied from 14-36 days. Of these rabbits the first three to die (on the first, seventh and eighth day respectively), showed no meningeal congestion. One dying on the ninth day, showed a slight congestion of the meninges.

All of the others showed, post mortem, intense meningeal congestion. Cultures were made from the brain of several, but with negative results, showing that the meningitis was not due to any of the ordinary bacteria. The rabbit that died of broncho-pneumonia showed at the post mortem the same meningeal congestion as the others, justifying the supposition that it would in a day or two have died of rabies if it had not been prematurely killed by the accidental infection. In this series the result was positive in over 50 per cent. of the animals inoculated.

On Saturday, October 11, Mr. A. F. brought a black spaniel to the laboratory, looking for a veterinary surgeon. By the courtesy of Dr. Brenton, I had already seen one case of rabies in a dog, and something about this animal's appearance convinced me that it was suffering from the same disease. I induced Mr. F. to leave the dog with me, and at once had him locked in a box-stall, where he could do no harm, and watched him closely until he was killed on the following Thursday night.

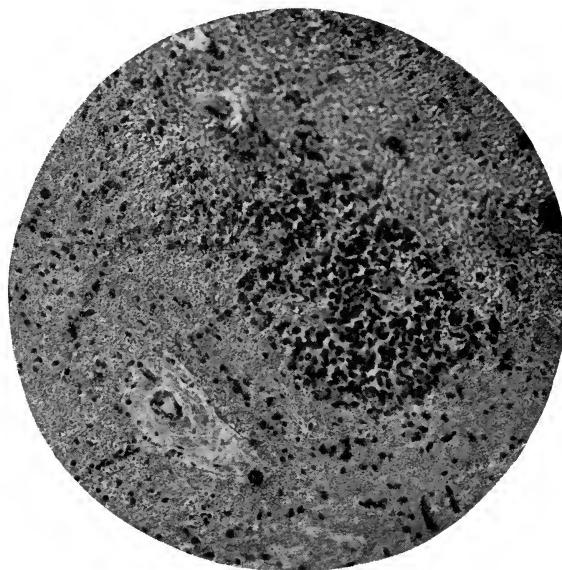
When he was brought to the laboratory he showed no inclination to bite, and no paralysis of the hind legs. There was, however, beginning paralysis of the elevator muscles of the jaw. The dog car-

ried his mouth open, and could close it only with difficulty. The eyes were red, and there was a peculiar distressed and distrustful expression of the face. At this time I noticed no dropping of saliva from his jaws. He had for several days refused food. Mr. F. told me that the dog had been bitten on the ear by another dog about four weeks previous to this time.

As the disease progressed, paralysis of the hind legs gradually developed. The

to the laboratory, fearing that he would die during the night, and that on Friday I might be unable to give the time necessary for removing the medulla and inoculating rabbits, I chloroformed him and performed the post mortem that night.

Post mortem findings were the same as in the other dog, with the exception of the alimentary canal. This did not show the marked congestion seen in the other case. The stomach was empty, and



Rabic tubercle.

dog walked with an awkward, wobbly gait. He tried to avoid notice, and lay a large part of the time far away from the door of his stall, moving only when aroused. He evinced no inclination at any time to snap, nor did he at any time show a dread of water. On the contrary, he would lap it, but was unable to swallow any. While little saliva was seen to drop from his jaws, his fore-legs were constantly wet with what dropped from his mouth as he lay with his head on his paws. The paralysis gradually increased until during Thursday he lay apparently helpless. On Thursday night, five days from the time he was brought

showed a number of submucous hemorrhages. These were not recent, for the blood cells were destroyed and only the pigment remained. They may have had nothing to do with the rabies.

A series of five Belgian hares was inoculated with an emulsion of the medulla, with the following results:

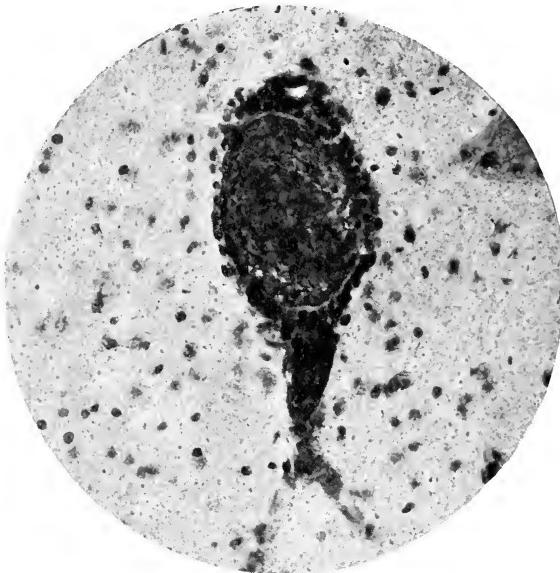
All of these hares but one died, showing symptoms and post mortem changes found in rabies. The fifth hare was kept until necessity for the use of the box stall in which it was kept compelled us to kill it. The shortest incubation period in this series of inoculations was 16 days.

On Thursday, November 6, at the re-

quest of Health Officer Kiefer, I went with him to see a cow that had been killed, suffering from what was supposed to be rabies. I obtained the following history:

During July or August, the cow had a sore leg. Examination of the scar showed a wound resembling that which a dog might have given by a bite. Symptoms first appeared on the day before, although the cow had for several days refused her food. She was not in heat, nor

been up with the cow for about an hour, and that she had just broken out of the barn. I saw the place later, and she had simply torn off the end of the shed where she was kept. When they went out to recapture her she met them in the alley, and as soon as she saw them she made for them. The barn man, stepping aside, caught her by the halter, and managed to hold her and keep her from harming him, although she was struggling violently all the time, until her owner came to the



Dilated Blood Vessel, with Collection of Leucocytes along its course.

was she far advanced in pregnancy. Wednesday she became irritable, and on the way home from pasture attacked her attendant several times, but as her horns had been removed, she was unable to do him harm. He thought nothing of it, except that she had been irritated by boys in her pasture. About 12 o'clock that night her owner was wakened by hearing her bellow. At 2 o'clock he was again wakened by more disturbance, and about 4, hearing a great commotion, ended by a crash, he called his barn man, and hurriedly dressing, went out to her stable. His man told him that he had

rescue with a rope, and together they tied her to a telegraph pole that stood within a foot or two of a barn on the opposite side of the alley. She immediately attacked the pole and the barn, finally throwing herself against the pole so violently that she knocked herself down. She was then killed to prevent her doing further damage.

Her head was brought to the laboratory, and a series of nine rabbits was inoculated with the medulla. Of these rabbits one died immediately after the inoculation; seven died showing all the symptoms of rabies; one suffered no ill effects

from the inoculation and was finally killed. The shortest incubation period in this series was fifteen days.

I have some hesitation in presenting this work, knowing that in many respects it is incomplete. I do so, hoping that however imperfect, it be of some interest.

In closing I wish to thank Mr. E. H.

Hayward, without whose assistance these inoculations would have been impossible. In addition to other services, I am indebted to him for the microscopical work and for the photomicrographs that accompany this paper.

33 Mullett Street.

THE PHYSICIAN ON THE WITNESS STAND.*

By S. T. DOUGLAS.

A facetious barrister once remarked that prevaricators might be conveniently arranged in an ascending series, viz.: Ordinary fibbers, liars, and experts. This classification strikes one as exceedingly harsh, but for the cause of it one does not have to seek very far. It is based somewhat upon ignorance upon the part of the judiciary and the bar, but I believe more generally upon what might be called worse than ignorance on the side of the so-called expert witness. I have been asked to say something on the topic, "The Physician on the Witness Stand," but I trust I will not be considered as departing too far from the subject if I extend its scope to a consideration of the scientific expert witness, viewed from a professional standpoint.

The natural respect which the laity has for the physician gives him, as he enters the witness box, such character and strength as is possessed by but few others. And if he maintains the dignity of his profession by a plain and impartial statement of the truth, by a fair and frank expression of opinion, his testimony is sure to have great weight. He is the most usually met with expert. He should be ever mindful of the privilege which the law gives him in respect to the confidences of his patients—those confidences which are absolutely sacred, and the betrayal of which for mere gain would but ruin the reputation of the ablest of

the profession. He should be open and frank in his statements, and remember that neither the court, lawyers, or the jury, can understand with much clearness the technical expressions of the profession, but prefer that the case at hand be represented in a simple and terse manner, freed as much as possible from scientific verbiage. Scarcely a day passes that the public press is not filled with the account of some trial, made notorious, and prejudiced, perhaps, largely by its publication, but made equally conspicuous by the character and testimony of the expert witnesses called to prove or disprove the guilt or innocence of the person on trial. It would seem as if any one having the slightest smattering of knowledge of the subject involved in the litigation and concerning which he is asked to testify, could boldly take the witness stand, proclaim himself an expert on the subject and forthwith declare his opinion—an opinion sometimes based upon no experience and no previous information whatever, but biased and controlled almost absolutely by either a reward already paid or by the hope of a future one.

The question of the standing of experts and expert testimony in courts of justice is one which is engaging the attention of lawyers, judges and litigants in this country and in England. Many a court has been forced, by the character of the experts coming before it, to express its disgust at this class of testimony and it is not infrequent to hear of a

*Read before the Wayne County Medical society, Feb. 12, 1903.

charge being made to the jury that entirely ignores the opinion of the expert witness.

The field of the so-called expert has been largely increased. Some one is injured, and on both sides medical examinations are made, not necessarily for the purpose of improving the condition of the injured party, but more particularly to ascertain what his condition is, for the purpose of litigation. The expense attending such examinations is becoming, in many cases, enormous. The amount of damages recovered becomes an insignificant sum compared to the amount paid by the unfortunate litigant, who is compelled to defray the costs of these experts.

It is not entirely improbable that the present day professional medical expert is the outgrowth of the precedent of those vultures of the bar, who are easily first at the bedside of the injured person, urging that whatever the cause of the injury, whether by the injured person's own neglect or not, he has a cause of action which will bring heavy damages if entrusted to the solicitor. And it is equally probable that it is to a certain extent chargeable to the employment by large corporations in whose business there is a natural danger, of physicians, who, by such employment, become paid professional experts, and who are furnished with a "hurry-up wagon," and with instructions to beat, if possible, the damage case lawyer in his efforts to reach the bedside of the injured. Can a medical expert be any more free from bias in the expression of opinion in favor of his client than the vulture lawyer referred to?

Experts are found on both sides of most criminal cases, giving generally conflicting and always expensive testimony, and it would be almost useless to attempt to deny that the result of important trials in which expert testimony is a factor is to

further discredit the expert, as well as to condemn the system—or lack of system, rather—under which they give their evidence. These battles of experts, who are employed for the purpose of not simply testifying about the facts within their personal knowledge, but to give their inferences from these facts, are most frequent. That these inferences should be conflicting and contradictory is no more to be wondered at than the fact that they are favorable to the side on which the respective experts are retained, and it is no more than natural that this should be so. Such a state of affairs is witnessed in almost every case in which expert testimony is called in, whether it be in regard to disputes on the alleged administration of poison, medical testimony generally, or the identification of certain remnants of bones, as in the famous Luetgert case in Chicago, which were claimed by one side to be those of a human being and on the other side, with equal strenuousness, to be those of a hog, or whether in the diagnosis and treatment of some disease, the inevitable positive contradictions of this class of witnesses are always found, and only go to discourage the administration of law and to defeat, in a measure, the ends of justice.

Whether the fragment of bone found in the vat, which was the pivotal point of the Luetgert case, were human or not, was an issue which in some other country would have been impartially passed upon by a permanent commission of experts, appointed by the government, called by the judge, paid by the year, and making their report independent of either side, and this commission would not have been interested in the case in one way or the other. Their report would have been scientific and impartial. When made, it would have been accepted by the jury and the court as giving the facts in the case. The trial would have been free from those sacrifices of conscience neces-

sarily made by the professional witness, and those exhibitions of contradictory scientific testimony which go so far to discredit the profession, as a whole, in the capacity of witnesses. Unfortunately, however, this is not our way of getting at such facts. We allot experts to each side, and it becomes a tug of war which can exercise the greatest pull on the minds and imaginations of the jurymen. Each side finds by sufficient payment men of science willing to impart their views. The medical experts are as much on opposite sides as the lawyers, and moreover, they are paid in the same way.

Someone has said that "Expert testimony should be the colorless light of science brought to bear upon any point where it is wanted; that it should be impartial and unprejudiced; that there should be no half-truths uttered; and that the suppression of the whole truth is in the nature of false testimony." If this standard were applied to any of the recent trials it would necessarily follow that one or the other class of witnesses lied most lamentably. Unfortunately, this definition is one of expert testimony, not as it is, but as it ought to be.

The scientific man, whether he be the physician, the chemist, or the mechanic, should at all times be ready to have his work scrutinized with all care. But the opinion entertained by the public in reference to expert testimony may be ascribed, perhaps, as a cause why men purely scientific, honest and fair in their opinions, unprejudiced by the hope of a larger reward, sometimes leave the witness stand after an examination by an attorney who knows probably absolutely nothing about the subject matter being testified to, leaving an impression upon the jury far from flattering to their skill and ability, and giving to their testimony no weight whatever.

The expert medical witness must be prepared to encounter in the court-room

not only unfamiliarity with his specialty but also deep prejudice and popular notions so fixed as not to be removed by the word of a single witness. A well-posted witness (and no physician should ever go upon the witness stand unless he is well posted), able to control his temper on cross examination, has always an advantage over the examining attorney. He is thoroughly familiar with his subject while the attorney is more than likely groping in the dark, hoping to stumble upon some defect which may aid his case. The physician-witness needs only to believe this, and to be frank, simple and straightforward in his replies to questions and in expressing his opinion.

It is a fatal error for the expert witness to assume to know too much. Terse, clear answers, well within the narrow path looking to the point in question, are the only safe ones, and when the inquiry leads into regions where the witness himself is not truly an expert, or is in the slightest doubt, his proper course is to refuse to testify outside of the boundaries of his regular province. An admission of a lack of knowledge on a certain point is apt to strengthen a medical expert's testimony upon some other point with which he shows himself familiar; but an expression of opinion upon some question in which he has had so little experience as to forbid a valuable opinion, only weakens the value of the expert's testimony.

To insure clearness, it will be well for the medical expert to reduce technicalities to a minimum. Possibly to a degree they are unavoidable, but let them be as few as possible. Let your illustrations be homely but apt, and you will make the best impression on the court and jury. If possible, make them from scenes in the daily lives of the jurymen, for in this way the expert will be better understood. Do not think you are talking to a medical society. Ignore medical terms as much as possible.

The physician should never be led beyond the field in which he is truly an expert. As some one has said: "Be as fearless of legitimate ignorance as you are fearful of illegitimate knowledge." It is no more the province of a practicing physician, with an experience in one case, to give his opinion as an expert that the result of a chemical test to which certain portions of the body have been subjected, evidences the presence of morphine rather than the existence of ptomaines or leukomaines, than it is within the sphere of a chemist to diagnose a case of appendicitis.

That the science of medicine is not fully developed will account for much divergence in the testimony of medical experts. Do not believe that a guinea pig or a rabbit is a human being, for you may be led into the same predicament that certain medical experts were who, having made substantially the same experiments upon the innocent guinea pig, expressed diametrically opposite opinions, the one that the pig fattened and thrived by the use of formaldehyde in small quantities, and the other that he became pale, emaciated and sickly. These experiments may be a convenient indication, but do you believe they are the basis of a positive opinion?

When an opinion is speculative, theoretical, not based on actual knowledge and stating only the belief of the witness, while some other opinion is equally consistent with the facts of the case, such opinion is entitled to little weight. A physician who has never performed a certain operation, or met a certain set of complications, may speculate as to what he would do, but after all, of what value is his belief and opinion in contradicting the correctness of a course of action actually pursued?

Through ignorance so frequently encountered at the bar, the expert medical witness may be exposed to a one-sided

criticism, and a weak point may be opened up by adverse counsel which a direct examination may fail to repair, because of the want of familiarity with the technical subject on the part of the friendly attorney, and so the expert witness is left in the unenviable position of disagreeing with the general drift of his own testimony, while he is deprived of the means of insisting upon its revision and correction.

The true medical expert knows no side to a law-suit. His duty is not to give a lecture upon any particular subject, but to express his opinion truthfully and fearlessly, regardless of whom it helps or hurts.

Do not think you must always answer a question "Yes" or "No," although the attorney may waste much oratory in insisting upon such replies. If such an answer will not fully express an expert's opinion, he should insist upon refusing to answer, unless he can couple same with an explanation.

Above all things, the medical expert witness should not lose his temper. With this gone, his testimony is valueless.

It must be admitted that a serious feature of medical expert testimony is its unintelligibility. For instance, a question is asked of the witness in a reported medical case, whether a certain dose of a prescription containing chloral would have been dangerous, to which he replied: "Not unless the patient was idiosyncratic to chloral." Ten to one that not one of the jurymen ever heard of the word and possibly they might feel offended at its use. But this is mild compared with some of the medical and chemical terms often used, sometimes, it must be admitted, with a feeling on the part of the witness that their use indicates knowledge and profound study. The foreman of the jury in the famous Buchanan case in New York, remarked, after the trial was over, that "if the jury had taken in one-tenth

of the scientific testimony they ought to receive diplomas."

Another cause of the waning prestige of expert testimony may be said to be (and for this the lawyer is responsible), the excessive length to which such evidence is pushed. Murder trials, occupying three or four weeks, or longer, are not at all uncommon, with six to ten experts on each side. Possibly the only remedy for this is that in time counsel will, by reading and studying, so acquaint themselves with the subject as to detect and expose a false or fallacious statement, thus sifting down the number of experts, and giving the true expert nothing to fear, but a confidence that in this way his own reputation is increased.

The hypothetical question is, perhaps, a necessary evil. The words of the *New York Times*, in commenting upon the famous Buchanan case, in which it stigmatized the hypothetical question as a method that "always being based upon a series of possibilities, simply opens up a field of conjecture, in which experts can theorize to their hearts' content, while the lawyers wrangle, the court scolds and the jury yawn and wonder what it all means," possibly in a measure reflects the general opinion.

An author has expressed his opinion of expert testimony in these words: "These gentlemen are generally required to speak, not to facts but to opinions, and when this is the case we ought not to be surprised to see with what facility and to what an extent these views may be made to correspond with the wishes or the interests of the party who called them. They do not, indeed, wilfully misrepresent what they think, but their judgments become so warped by regarding the subject from one point of view that even when consciously deceived they are incapable of expressing an opinion; being serious partisans, their belief becomes synonymous with faith as defined by the

apostle, and it too often is but the 'substance of things hoped for, and the evidence of things not seen'." This possibility represents the popular estimate of expert evidence. It ought *not* to be correct.

The medical expert is confined to matters really beyond the reach of the ordinary intelligence and the testimony of those who have made these things their especial study ought to carry the greatest weight to the minds of those who, like the average juryman, know nothing at all about the subject. The opinion of an architect on the construction of a building, of an engineer on the strength of a girder, of a physician as to the cause of death should naturally be the sole guide by which a jury may arrive at an intelligent opinion, and these opinions ought to be generally conclusive. That they are not is, I believe, simply due to the fact that they are *simply* expressions of opinion; nevertheless they are opinions pure and simple. No one is bound to accept an opinion, if he chooses to set up his own prejudice in opposition to the matured judgment of eminent scholars or scientists. Is it not, therefore, the inherent vice of every opinion that it can never be conclusive, and it is always for the jury to accept or disregard it? Yet in many cases it is the only evidence that can be given. In poison cases, proof of the cause of death must always rest upon the evidence of the experts who have examined and analyzed the body, and the jury are practically forced to accept their conclusions.

There should *never* be any difference of opinion on a purely chemical subject, capable of positive demonstration. Two physicians may disagree as to the administrative treatment of a certain disease, but how can competent chemists disagree as to whether there is or is not poison in a given mass? Judge Story says: "Great weight should be given to the opinion of

experts who agree on a given subject," but he also says that such a condition is one of the rarest phenomena of nature and should be classed with the seven wonders of the world.

Again, it is impossible to have any confidence in conclusions drawn from premises which experience shows may be offset by a new discovery. The recent medical opinions as to the use of formalin, if corroborated by continued and widespread experiments, may possibly tend to show that this substance, which some eminent scientists have testified is a dangerous poison in any quantity, may yet be a veritable blessing.

In medical evidence there may always be room, perhaps, for a difference in honest opinion, and the cause of it may be the rapid advancement in knowledge and the radical changes going on in the profession. Opinions which ten years ago might have been unassailable are now shown to be baseless, and things which were then undreamed of are now shown to be facts. From a layman's standpoint, the rapid advance in medical and surgical practice is such that unless the older practicing physician keeps pace with these changes, he will find himself at odds with the younger men, whose education has been along the lines of modern discovery. Until the true effect and relation of the numerous discoveries in medical science have been fully known, we must necessarily expect that in the administration of justice elements of uncertainty in expert testimony will be found. Unless we know positively that in the processes of digestion or fermentation nothing can possibly be produced that will give the same test as to chemical reaction as some of the well-known vegetable poisons, morphine for instance, the value of the chemical test for that poison is weakened. In a recent noted trial, a medical and chemical expert of whom this state might well feel proud, if I remember correctly, gave

it as his opinion, based upon actual experience, that certain of the ptomaines and leukomaines produce reactions similar to those of the vegetable alkaloids, and that, therefore, it cannot be said with certainty what it was that produced the reaction. Here indeed is an element of uncertainty that will last until the differences in the effects of these substances and true tests for distinguishing them, are found. Would it be so remarkable if medical or chemical science should discover some ptomaine having exactly the same composition, the same number of atoms of carbon, hydrogen and nitrogen, as one of the vegetable poisons? And if so, would it be any more remarkable if this substance should give the same color reaction under the same chemical test? Who can say that this is an entire impossibility? For the composition of ptomaines is, comparatively, but recently known.

Is it an exaggeration to say that in the light of modern medical and chemical science, more than one man, more than one woman, has been convicted of murder in the criminal history of this country by the testimony of experts, based upon some medical opinion, upon some chemical reaction which more modern science has proved fallacious? The possibility certainly is distressing to contemplate, that some one for whose death another has suffered the death penalty may, by reason of a night lobster supper, have died from the effect of a ptomaine poison, and the one so convicted has innocently given up his life, a sacrifice to science, or rather, ignorance.

The present system for the conduct of expert testimony is, in my opinion, somewhat deplorable and can lead to but bad results. It is at best a necessary evil. In many parts of the country the expert is in disgrace. In many states the law recognizes the necessity of paying more than the ordinary witness fees to experts,

so that there is a pecuniary recognition of their value. An expert whose skill is not shaken by the trying ordeal of the hypothetical question comes high. In a recent murder trial in New York city the medical experts received from the county \$7,250.00, and the fees given experts in any one of our larger cities in any noted trial would probably be more than twice the amount of the annual salary of permanent experts.

But, it will be asked, what is the remedy? In Scotland, the report of the medical man engaged on the case forms part of the case itself before the procurator. In England, such testimony is adduced at the trial. In France (I quote a recent writer on the subject): "The court may order an investigation and report by experts, whenever it deems it advisable. If the parties cannot agree upon the experts the court appoints them. These are selected from the list made up especially of experts. The report of the investigation contains a statement of its presiding officer and is presented to the referee or Judge Commissionnaire. The parties are not allowed to appear before the experts, but they are represented by counsel especially secured for the matter of the investigation. The report is signed by three of the experts and if there be a dissent, the dissenting opinion and the reasons for it are set forth in the body of the report. The judges, however, are not bound by the report if it is opposed to their convictions."

In Germany, where expert testimony is desired, litigants may agree upon the experts and the court may appoint the persons so agreed upon and confine the parties to a given number. Sometimes the courts submits to the parties the names of a number of experts and allows each side the option of choosing a certain number of them and then appoints those remaining. A class of officially appointed experts on certain subjects exists, and in

trials pertaining to these subjects, such experts have the preference of appointment, unless there exists some especial reason why they should not be appointed.

In Prussia, as I understand it, a physician and a surgeon are appointed in every district, and an appeal may be taken to the medical college of the province, if the experts disagree or the parties desire it. "There is also an appellate medical college for the whole kingdom."

In Australia, persons desiring the opinions of an expert on any matter concerning which scientific evidence is important, have a choice made from an official roll of experts, and the appointee making the examination gives his testimony before the jury.

Where experts are paid by the parties to a cause, it is only natural that an *ex parte* character should be impressed upon their evidence, and although a man's opinion, formed upon a particular statement of facts, should be certain and defined, experience shows that it is often so chameleon like, it is likely to take color from the side which has made the first overtures. Is it not probable that the testimony of a physician retained regularly by a corporation or an individual given in a certain case, will be prejudiced in favor of his client? You make that charge against the lawyer; is the doctor any less human than the attorney?

Any plan which eliminates expert testimony from the charge of prejudice and paid opinion will be an improvement, for thereby the great cause of justice would be benefited and the confidence of the public established.

Experts should be selected by the court without any interference of the litigating parties. They should have no interest whatever in the suit. They should be considered friends of the court and should be dignified accordingly. If there is difficulty in the parties selecting their own experts, the fact that one side insists upon a favored witness as the expert should be sufficient to put any Court on his guard in allowing such

witness to testify. When selected, experts, especially medical or chemical experts, should be paid by the county, without being allowed to receive fees from either the prosecution or the defense. They should be entirely disinterested, both as to the subject matter and as to the parties. In other words, they should be free to express their honest scientific opinions, regardless of friend or foe.

There is certainly a widespread feeling that legislation should be enacted to remedy what I believe is an existing evil. Several states have already taken action in this direction. If I am correctly informed, six of the medical societies of Chicago recently appointed a joint committee of eighteen reputable physicians to draft a bill for the Illinois State Legislature for passage, and it has received the sanction of the Medical State Society of Illinois. Dr. W. J. Herdman, in a paper read before the Association of Railway Claim Agents, speaks in detail of this bill. Generally, it provides that the judges be authorized to appoint in the month of January of each year persons authorized to act as medical experts and to give evidence on such questions as presented in hypothetical form, or in criminal cases that may come on in courts presided over by them. They shall hold their appointments for a year, and until their successors are appointed and qualified. They are entered on a list as expert witnesses, kept by the clerk of the court, and each receives a certificate of appointment as such. They shall be citizens and shall be known in the community wherein they reside for their professional competence and personal probity, and if physicians, they shall have been at least five years in regular and active practice. The trial judge presiding in the case when expert opinion is desired, may, at his discretion, summon them for duty to the number of three. They are paid for their service by the county in such sums as the judge shall fix. It is their duty to give opinion on the facts as presented in hypo-

thetical form in the cases in which they are called. They shall be subject to cross-examination by both the prosecution and the defense, but such cross-examination must be entirely confined to the subject embraced in their opinions. In criminal cases, if the state's attorney deems it advisable, the court having jurisdiction, on a statement from him, may summon expert witnesses to serve.

Pennsylvania has also made efforts in this direction, but the method in that state, being an appointment on the petition of one of the parties, is certainly open to criticism. One provision of the Pennsylvania act, however, should be considered. It provides that "the acting experts shall not, under penalty of fine or imprisonment, give their opinion to the parties or to any persons before the trial. They must either be present at the trial or must read a copy of the testimony before giving their opinion. They are not to be called by or side with either party, but called during the trial at a time determined by the court." They are paid by the county.

In New York an attempt has also been made, but no positive legislation has been enacted.

Is not the time ripe for an association of the Wayne County Medical Society's standing, from whose ranks the larger number of experts in this community are furnished, to take the step in the direction of this reform? Every county in the state, as I understand it, has a county medical society, and it seems to me there should be no practical difficulty in the way of selecting in each county lists of competent medical experts, from which the presiding judge in each county may select those best fitted to testify in the particular case, and that the testimony should be limited to those so selected. I can conceive that numerous objections may be raised to such a plan, but worked out on proper lines, it would certainly save the state and tax-payers hundreds of dollars annually.

Why is it not within the province of your association to select a committee to prepare a model statute, and present it for passage at the present legislature? The first state which reforms this abuse by giving the judges in each county the power to appoint such experts, would be taking a long stride in the right direction. The slightest examination or thought

concerning the present system is sufficient to condemn it in the severest terms, and warrants the assertion that, not only on the grounds of expense but also those of the miscarriage of justice, should some such change be made.

Let us hope that Michigan will not be the last state to adopt some such reform.

Detroit, Michigan.

New Buildings for Columbia University.—The *Medical News* makes the following report of improvements at Washington: Since the reconstruction of the old hospital and the addition thereto of the extensive new structure just completed, the institution is now provided with private rooms, newly and comfortably furnished, with all modern improvements, some of them with private bathrooms, arranged en suite, and with open fireplaces. Elevators, sun parlors, a roof garden, and the best arrangements for ventilation, heat, and for every home comfort and convenience have been provided. In the original building arrangements have been made for a maternity service, and in the new structure, besides the private rooms, wards for medical and surgical cases are now ready. Three operating rooms, fully equipped with modern aseptic and antiseptic appliances, and rooms for a dispensary service, have also been supplied, including a complete sixteen-plate Bowen X-ray apparatus. The new building for the Medical and Dental Schools is five stories high, with four large lecture halls, each seating from 200 to 350 students; large laboratories for chemistry, pharmacy, histology, physiology, bacteriology, pathology, and anatomy; recitation rooms, professors' rooms, museum, library, reading room, and study rooms. The dental infirmary rooms, with good southern light, modern chairs, and every facility for operative and prosthetic work, are unexcelled. The central location of the hospital and the readiness with which it can be visited by members of the medical staff in case of need are especially desirable.

Dangers of Hypnotism.—We recently spoke of the evils of popular hypnotism and of the dangers arising from its use by the ignorant. Since then the warning has been emphasized by others, and now German scientists are extending it to the heretofore seriously entertained therapeutic applications. From Berlin comes the report that the commission of experts in mental diseases appointed by the ministry of education to investigate the healing value of hypnotism reports that it is essentially worthless. The commission was composed of Professor Mendel and Drs. Gock, Munter and Aschenborn, who were appointed during the faith healing excitement there a year ago. The report declares hypnotism cannot produce organic changes nor cure epilepsy nor hysteria, but it can be used helpfully in some instances by removing symptoms through suggestion. In Cleveland, O., a plea was recently made in the defense of a criminal later convicted of murder in the first degree, that he had been hypnotized, and thus incited to the crime. The court told the jury that this testimony could be "accepted for what it was worth," and a recommendation for mercy by the jury followed, resulting in a sentence of life imprisonment. The folly of this recommendation is evident. If hypnotic influence is powerful enough to compel the commission of a crime, it is plain that it destroys the accountability of the hypnotized tool. If so, there would be no justice in the plea for mercy and lessening the severity of the sentence. But in that case the punishment should be inflicted upon the hypnotizer, who in the Cleveland trial seems to have escaped free.—(*American Medicine*.)

DETROIT MEDICAL JOURNAL

A MONTHLY EPITOME OF
PRACTICE AND THERAPEUTICS

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NOTE.—We do not assume responsibility for the opinions of contributors.

The management cannot undertake to return rejected manuscript unless full postage for the purpose is submitted with the contribution.

Address all communications to 270 Woodward Avenue, Detroit, Michigan, U. S. A.

Vol. 2.

DETROIT, MICHIGAN, MARCH, 1903.

No. 12

A GULLIBLE PROFESSION.

Gold bricks as such are seldom sold directly to physicians, but under other names the medical profession buys many gilded oblongs. Only occasionally is the doctor a business man in the current use of the term and hence he falls a ready prey to the sharp promoter who is equally ready to dicker for his little savings or for his professional good-will. Mining and industrial schemes of all sorts are laid before him as "good things" or "ground floor" propositions; but time proves that he was the "good thing" when he strikes bed-rock on his "ground floor proposition." A surprisingly large number of apparently level-headed physicians invest in Tontine Companies and other gambles which are insolvent from the first day of business.

The second type of sharper works the profession along pharmaceutical lines for his own financial gain. Physicians are induced to introduce a product by prescribing it; and when a popular demand for the product is thus created, it is advertised direct to the laity, often backed by the endorsement of those who have been gulled into prescribing it. Another schemer donates stock, worthless but for the active co-operation of bribe-taking physicians. This scheme is hard to work,

because most physicians are too ethical to sell their good-will at the low rate which the cupidity of the promoter allows him to offer as the doctor's share of the rake-off. The latest of these grafts as alluded to in a previous issue attempted to metamorphose the bribe into the dear forms of wife and babies, happily cared for by gratuitous insurance. This sugar-coated pill has evidently not been taken "without shaking" by a sufficient number, and the concern now appeals for support to the "physicians of America," on the ground that its method of business prohibits substitution, counter-prescribing, refilling and other objectionable practices of the unscrupulous druggist.

This company puts on the market a limited number of compounds which are mainly substitutes for well-known semi-proprietary products now before the profession, under new trade-names sufficiently changed to avoid copyright complications. The physician is given the formula, but the druggist is not; hence the physician who prescribes any of these compounds is forced to do so under the proprietary names—catchy enough in the main to become household words with the laity within a short time. The sequel is easy to see—another dozen or two of old combinations under new names sold direct to the laity. A beautiful scheme, certainly, for the promoter!

The physician is surely not benefitted by fostering wholesale self-prescribing among his patients, nor by abetting the practice of the druggist in selling over the counter in response to the popular demand products for which he is made to pay three or four times the current prices of the same preparations, minus the trade-mark name.

The company claims that a system of removable labels, to be redeemed at fifty cents a dozen when returned by the druggist, with his own name and that of the prescribing physician upon them, will

prevent the druggist from supplying the popular call for these products which will follow their general use by physicians under easily remembered names like "Golden Seal," "Bronchial Sedative" and "Cod Liver Oil."

It is presumable that the druggist is only human and would take his profit on the sale over the counter in preference to the four-cent label rebate, with a trustful hope at some time the label might be useful, too.

The advancement of modern pharmacy, coupled with the commercial spirit of the age, has placed many preparations of undoubted value and grateful palatability upon the market. Unfortunately, however, many of these products have come into general use among the laity through the careless use of trade-mark names by prescribing physicians.

Any company organized to foster the use of these grateful and palatable compounds under pharmaceutical and not *proprietary* names would be entitled to hearty support from the medical profession, because the indiscriminate drug-taking of the laity is an undoubted evil in itself, irrespective of its effect upon the financial returns of practitioners of medicine. But the company in question appears ill adapted to work reforms in this regard, and physicians should hesitate to aid it in popularizing its trade-mark among an already over-medicated public.

EXPERT TESTIMONY.

The interesting paper upon this subject published in this issue, expresses forcibly the current opinion among the best men in the legal profession regarding medical expert testimony. The scathing arraignment of the expert who is such in name only is doubtless merited. Much of the blame for this acknowledged abuse is rightly placed upon the vultures of the law and the corporations, which in self-

defense from the aforesaid vultures maintain a corps of physicians whose judgment and testimony may be biased by the conditions under which they are employed. The present method of allowing an attorney to place upon the stand as experts any medical men whose opinions agree with his contention is certainly not conducive to elucidating "the truth, the whole truth and nothing but the truth." Here again the attorney is at least equally culpable with the doctor who testifies regarding matters of which he has little knowledge, but an elastic opinion. They both need the money.

The efficiency of the suggested remedy can be ascertained only by trial. When even the Supreme Courts are not wholly divorced from politics there is at least a possibility that a commission of experts selected by a local or a county judiciary might not represent fairly the best medical talent available. Instances may be recalled, even in this city, where experts have been selected by the courts who have been in no way recognized as such by the medical profession.

Even judges err in judgment, especially regarding the ability and standing of men outside their own profession. Why not defer to the judgment of a fair medical board, chosen from the leaders of the profession, themselves debarred from serving during their term of appointment, but empowered to select for the courts competent experts?

PAST AND FUTURE.

We close the second volume of the *Detroit Medical Journal* with every prospect of success. Our index, covering two years of the publication, shows that we have published ninety-four original articles, sixteen of them illustrated, and all written by men of high standing in the medical profession. The *Journal* has published 768 pages of reading matter, for the most part readable and interest-

ing, and it is our intention, beginning with the April number, to increase the size of the publication to some extent. Reviews of the leading articles of the month, brief but comprehensive, will be incorporated in the new make-up, and we shall endeavor to continue the *Journal* on the same ethical lines which have distinguished it since its first issue.

We have received gratifying support from the leaders, the thinkers, of the medical profession, and we confidently look for a continuance of their friendliness, inasmuch as we shall try sincerely to continue to merit it. The *Journal* is always grateful for honest criticism, and we are pleased to hear from any of our friends at any time with a suggestion that shall make the practitioners' monthly more of a help to all of us. We have tried to make the magazine practical, and we believe that we have succeeded.

Our advertisers have stood staunchly by a young periodical, always a test of friendship, and we are glad to be able to say that we have given good service in this direction, too. We shall continue the *Detroit Medical Journal* on the same broad lines as before, with every improvement for the benefit of our readers that our means will allow. We shall take up the first issue of Volume III with a good heart and work to maintain a standard which we confidently believe has been a high one.

distinctness. The decision absolutely establishes the right of the medical board of the state to act under the law in the premises, the words of Justice Brewer on this point being: "The power of the state to make regulations providing for determining the qualifications of those engaged in the practice of medicine, and punishing those who attempt to engage therein in defiance of such statutory provision is not open to question." Further on, he says: "The proceedings of the board were not of a criminal nature; the state was seeking to ascertain who ought to be admitted to practice medicine and surgery, and criminality only arises when one assumes to practice without the right granted by the board. The proceedings to determine qualifications are no more criminal than an examination for the law, and if the provisions for the test are reasonable they must be complied with." The plea that the law is *ex post facto* received little credence by Justice Brewer, as he points out the fact that the statute does not attempt to punish for past offenses.

At the June meeting of the American Medical Association, held at Saratoga Springs, N. Y., a joint resolution from the section of Cutaneous Medicine and Surgery and the section of Hygiene and Sanitary Science was introduced, to the effect that steps be taken by the association looking toward the prevention of the spread of venereal disease. The house of delegates endorsed the resolution and drew up another, calling for a committee of six to be appointed by the president, "for the purpose of stimulating study in and uniform knowledge of the subject of prophylaxis of venereal disease." The resolution also called for a plan to be submitted by the committee to the association for a national conference on this important matter. The committee is as follows: Dr. Henry D. Holton, chairman,

EDITORIAL NOTES

The decision handed down by Justice Brewer of the supreme court, on the case of August G. Reitz, of Muskegon, who brought suit to test the validity of the medical act of 1899, passed by the Michigan legislature, has a refreshing

Brattleboro, Vt.; Dr. Ludwig Weiss, secretary, 77 East 91st St., New York; Dr. George M. Kober, 1600 T St., Washington, D. C.; Dr. W. H. Sanders, Montgomery, Ala.; Dr. L. Duncan Bulkley, 531 Madison Ave., New York, and Dr. Frank H. Montgomery, 100 State St., Chicago, Ill. The committee solicits personal correspondence from those who support the movement, and would be glad to hear from those who will contribute papers, etc., on the subject, in case the House of Delegates should view with favor the holding of such a congress as is proposed.

On February 24 last a medical society composed of the physicians resident in Macomb county was organized at Mt. Clemens. It will be known as the Macomb County Medical Society, and starts with a charter membership of twenty-four. The society is the result of the recent determination of the physicians to organize the counties into societies, these to be affiliated with the state society and in turn with the American Medical Association. The officers elected for the county society are as follows: President, Dr. P. A. Knight, of Mt. Clemens; vice-president, Dr. R. L. Paskin, of Romeo; secretary and treasurer, Dr. Joseph Croman, of Mt. Clemens; committee on constitution and by-laws, Dr. William Green-shields, of Romeo, Dr. J. G. White, of Mt. Clemens, and Dr. G. Wilkie Shipman, of Richmond; committee on admission, Drs. H. F. Taylor and Henry G. Berry, of Mt. Clemens, and Dr. Edward Miller, of Romeo.

In line with the medical bill now pending in this state is the bill before the Pennsylvania legislature, which asks that everyone professing to diagnose and treat diseases in whatsoever way shall pass an examination by the state board, after four years of study in a recognized college.

The evasive claim that one is not practicing medicine who does not give drugs or use the knife is thus eradicated. Special methods in therapeutics are thus not legally recognized; hence anyone may follow any system of practice desired, provided he is well trained in the fundamentals of medicine. Osteopathy, Christian Science and other short cuts to medical practice would then largely disappear, because there would be little inducement for the practitioner to limit himself to a system of narrow therapeutic application when a broad training had placed the whole world of medical science at his disposal. May the bill be enacted into law!

At the meeting of the regents of the university on the fifth of the month, the establishment of a Pasteur institute in connection with the university, was authorized. Michigan will thus have the honor of being the third state to contain such an institution, New York and Illinois being at present the only ones in which institutions for the preventive treatment of rabies are maintained. Dr. Victor C. Vaughan estimated that \$3,500 would cover all the expenses of the department for a year, and that amount was accordingly appropriated by the regents. Dr. Thomas Cooley, a son of the late distinguished jurist, Thomas M. Cooley, will have charge of the institute. Equipment and building are already at hand, and it is believed that patients can be received by April 1.

In view of the fact that the *Index Medicus* is only now beginning to get on its literary feet again, a peculiarly timely action has been taken by the publishers of the *New York Medical Critic*. They have arranged to issue this month a medical index of the principal medical publications of this and other countries, to the number of over 600, and also the titles

and the authors of the articles published therein during 1902. The publication is expected to at least partially bridge over the period that has elapsed since the discontinuance of the *Index Medicus*. It will be presented to the subscribers of the *Critic*.

Ithaca has had a terrible lesson in the epidemic of typhoid fever which has held the city for several weeks. The drinking water of the city, which has about 12,000 inhabitants, was contaminated near its source by workmen sick with the fever, with the result that considerable over 500 cases of typhoid have already appeared. It seems a remarkable thing that there was no one in charge of the source of water supply to see that it was not rendered unfit for the use of several thousand people; the college students, numbering nearly 3,000, are packing up and leaving town, and college life is, if not at a standstill, pretty well demoralized. Ithaca will probably keep a sharper eye on her water supply hereafter; but the horse has already been stolen.

United States Consul McWade, at Canton, China, according to a dispatch of the Associated Press, makes the announcement that Dr. Adolph Razlag, an American physician, has discovered a means for the cure and extermination of leprosy. The consul's report to the state department says that the doctor's work has been extremely successful among the lepers in a village six miles away from Canton, and Dr. Razlag is advocating the adoption of his treatment in the Philippines and the Hawaiian Islands. The treatment is said in the dispatch to consist of "minute and prolonged sanitation and the use of highly antiseptic drugs."

They have been making things warm for one Nardenkoetter in Berlin. This man, an advertising specialist of an ag-

gravated type, figured conspicuously in the German papers for years as an advertiser of nostrums. He dodged the law and the medical societies for years, became rich and spent money like water on advertising. He finally was brought to account, had a two weeks' trial, and received a sentence in contumacy to three years in jail and a fine of \$900. He jumped his bail bond, however, and fled to England. His methods of treatment are said to have been very simple. He once had several patients waiting, but he was in a hurry and to save time he filled their prescription bottles with soapy water from a washbowl.

In a recent idle moment of waiting in the office of a successful practitioner of Detroit, we took occasion to glance over the books that he had on his office table, for the entertainment of his patients who were waiting their turn. It makes a fairly humorous list to publish them by titles and dates, as follows: Atlantic Monthly, January, 1901; The Critic, same date; Harper's Bazar, September, 1901; Scribner's, March, 1901; Tennyson's Poems; Detroit Blue Book; Pictorial History of Our War With Spain, 1898; Physicians and Surgeons of America, 1896; Japanese Fairy Tales. What a feast of literary excellence! And what happy hours one might while away with the Blue Book or the list of physicians and surgeons, seven years ago!

Bear in mind the fact that the American Medical Association holds its next meeting at New Orleans, on May, 5, 6, 7 and 8 of this year. Dr. Isidore Dyer, 124 Bayonne St., New Orleans, La., is the chairman of the committee on arrangements, and with his committee is hard at work preparing for a practical demonstration of true Southern hospitality toward those members of the association who attend this meeting. It will be a real

Southern meeting, and it is practically assured that there will be a large attendance of physicians from the South. The season is well chosen for such a meeting, and railroad rates of one fare for the round trip have been secured. It should be a large and an enthusiastic gathering of the profession.

At the annual meeting of the Detroit Free Dispensary for Women and Children, held March 4 last, the following officers were elected for a year: President, Dr. Adeline E. Gurd; secretary and treasurer, Dr. Anna Starring; directors, Dr. Lucy J. Utter, Dr. Margaret A. Fleming, Dr. Florence Huson and Dr. Harriet L. Hawkins. In the past year it was reported that 1,645 patients had been prescribed for and over 20,000 prescriptions compounded. The institution starts its eleventh year free from debt and with a small balance in its favor.

Capt. J. E. Mead, of the regular army, recently returned from the Philippines to Detroit, states that the worst feature of the islands is the cholera prevalent there. He estimates that several hundred thousand natives died of the disease in the past year. The American troops, he adds, have been able to stamp it out promptly whenever it has made its appearance among them.

Henry M. Utley, the librarian of the public library, called the attention of the library board at its last meeting to the fact that volumes exposed to infection by small-pox had been sent back with other books from one of the public schools. The board ordered all the books in the cases burned.

Through an oversight, an omission was made in connection with the article on "Otitis Media Insidiosa," by Dr. H. J.

Hartz, published in the February issue of the *Journal*. The article was a paper which was read by Dr. Hartz before the American Rhinological, Otological and Laryngological Society, at Washington, D. C., in June, 1902. An interested discussion followed the reading of the paper.

A memorandum on consumption, sent to the reichstag at Berlin by the chancellor Van Buelow recently, showed that out of a thousand deaths in Germany of persons between 15 and 60, 316 die of consumption.

Drugged to Death.—The *Medical Standard* adds the following verses to an announcement taken from the *Chicago Tribune* to the effect that a new drug has been discovered, called "carbonylthiocarbimidophenylbenzylthiocarbamide:"

His pulse was high and his brow was hot;
He shook with chills and his eyes were red;
He hurried into the druggist's shop,
And gaspingly and painfully said:
"There's something wrong with my system, Doc.
I'm out of gear in a spot inside.
O, hurry now, and prepare a dose
Of carbonylthio-
carbimido-
phenyl-
benzyl-
thiocarbamide!"

The druggist hustled behind his case,
And ran his eye o'er the bottle rack,
From asafetida down to myrrh,
And opopeltoc and ipecac.
"It's here, I know," mused the druggist man,
As podophyllin and punk he spied.
"Now, where the deuce is that little box
Of carbonylthio-
carbimido-
phenyl-
benzyl-
thiocarbamide?"

The patient sank with a feeble sigh,
And called: "This bother I much regret.
If it's not there, you might substitute
An overdose of the alphabet."
The druggist asked for the name again;
The man essayed it, and then he died—
He choked on the thirteenth syllable
Of carbonylthio-
carbimido-
phenyl-
benzyl-
thiocarbamide!"

NEW INSTRUMENTS & DEVICES

Mention of new instruments and devices in this department is entirely complimentary and articles illustrated are judged on their merits.

We invite manufacturers and physicians to send us matter suitable for publication under this head. A description of the device and an electrotype or half-tone with a base not greater than two and five-eighths inches should be sent.

Always mention the price of the article in question.

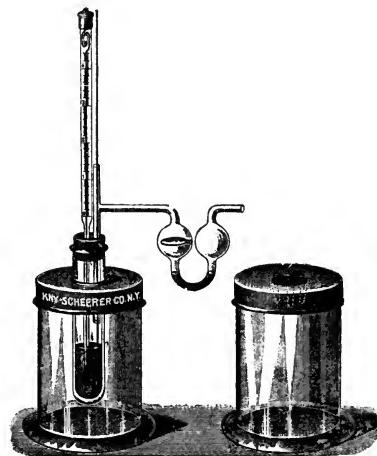
The management cannot undertake to return cuts unless postage for same accompanies the letter with which they are sent.

BECKMAN-FRIEDANTHAL CRYOSCOPE.

This apparatus is designed for determining the freezing-point and for the investigation of blood, urine, gastric juice, etc. In using it the whole top of the apparatus is removed and the jar filled with a freezing-mixture of crushed ice and salt. The outer tube is then thrust through the cover into the freezing-mixture and the inner tube filled with from 15 to 20 cc. of the liquid to be investigated. The stopper, with the stirrer, etc., is now replaced and the whole placed in the tube which is already in the mixture of ice and salt. The liquid is stirred until the mercury begins to fall, and close watch must be kept, as the lowering of the mercury is rapid. The exact point at which the mercury again rises is ascertained and finally a point also at which it remains stationary. The reading of this point is taken, the freezing point of the mixture under examination.

It is necessary to first test the thermometer with distilled water; this is done by testing in the freezing-mixture and gently tapping the reserve loop of mercury at the top until there is enough

mercury in the tube to make the freezing-point of the distilled water about 3.8°. The difference between the freezing-point of the water and that of the liquid ex-



amined is then easily determined. An able article on the manipulation of the apparatus is found in the "Centralblatt fuer Physiologie," 1899-1900, and articles by Drs. L. Casper, P. Richter and P. Mulon also treat of the same. The price of the apparatus illustrated is \$25.00 complete.

LONDON AUTOMATIC HAMMERTOE SPRING.

Hammertoe has been found an obstinate complaint to treat, and often an operation has been found to be the only means of reducing the deformity. The existence of this condition in so many patients has led to the invention of a number of devices for its treatment, among the best of which are those illustrated herewith. Their nature and simplicity may be readily observed from glancing at the cuts. Figure I. shows the spring in position on the affected toe. It will be observed that the spring is securely held to the foot without undue tightening of bands or tapes, and that the device is in general a great improvement over the slotted plates which are commonly used in the reduction of hammertoe. No

fastening to the deformed member itself is required, and the pressure exerted on the joint is equalized, as shown in Figure

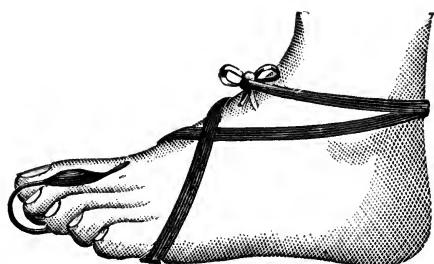


FIGURE I.

II., in such a manner as to do away with undue friction or annoyance to the patient. Free circulation is maintained while the spring is in position. This de-

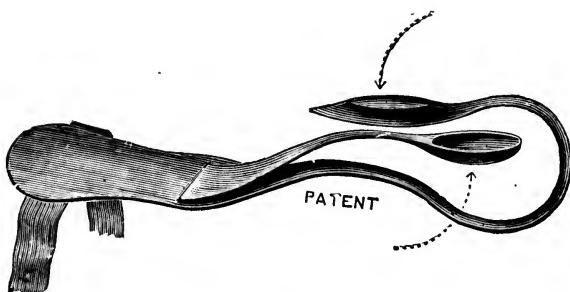


FIGURE II.

vice serves a useful purpose in being applied for after treatment, following an operation for the reduction of hammertoe. As the deformity is reduced the spring

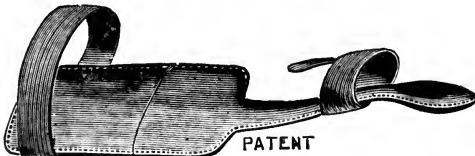


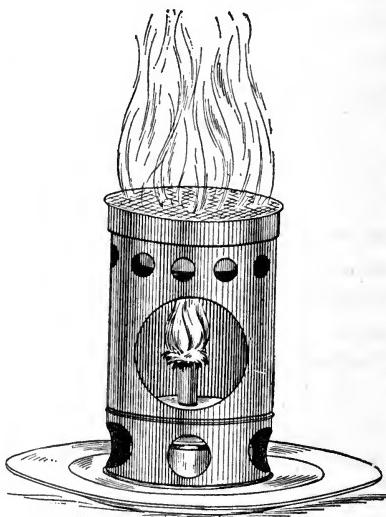
FIGURE III.

continues its action, requiring no readjustment.

The device shown in Figure III. is designed for use when the patient is walking, while that shown in Figure II. is worn while the patient is in bed. Springs of different strength are furnished by the manufacturers.

FORMALDEHYDE GENERATOR.

The cut published herewith illustrates a handy means for securing disinfection with formaldehyde gas. It is complete in spite of its small size, and is very handy to use; the gas is generated quickly and in large quantities. Pastilles of formaldehyde are placed in the receptacle provided for them, the wick of the generator



is lighted, and the work of disinfection begins. Physicians will find it a simple and a handy means of sterilizing their instruments, bandages, gauze, etc. The very simplicity and compactness of this form of generator makes it a general favorite, and it has successfully withstood every test thus far made of it. The pastilles come at \$2.50 a pound, each containing 700 pastilles, and the generator itself is remarkably cheap, selling for \$1.00.

Time Was Long In Passing.—A Buffalo surgeon reports a case of gastrotomy for the removal of a cheap brass watch, swallowed by the patient while joking. For a time previous to the operation patient was kept in hospital and given dry diet in the hope that the watch might be expelled "*per vias naturalis*." The doctor facetiously remarks that the man's stay in the hospital was a source of amusement to the other patients, who frequently asked him to "pass the time of day."—(*Clinique.*)

BOOK REVIEWS

The Practical Treatment of Stammering and Stuttering. By George Andrew Lewis. And a Treatise on The Cultivation of the Voice. By George B. Hynson, M. A. Illustrated. ages, 415. Price, Cloth, \$3.50 net. George Andrew Lewis, Publisher, Detroit, Mich., 1902.

Defects of speech are the specialty of the author of the first portion of this book, Mr. George Andrew Lewis. Mr. Lewis may be said to be the scientific pioneer in treating impediments of speech, and he has devoted much time and attention to his work. His portion of the book treats of the cause, treatment and cure of these defects; what he writes is based on his own experience. He goes into the subject interestingly, and has brought together into a compact and convenient form practically all modern thought and experience along the line of treatment. He also furnishes the reader with some valuable exercises to be used in overcoming a tendency toward defective speech.

Mr. Hynson, on the other hand, takes up the subject of cultivating a voice after it has been freed from defects. He gives some valuable hints as to what not to do, and in simple language he tells the reader some of the best things to do for the cultivation of a good voice. His explanations are intelligent and clear, and the reader of average intelligence should have little difficulty in following Mr. Hynson's train of thought. The book contains a number of carefully-selected pieces of literature, which have been chosen with a view to affording valuable material for exercising a voice, not only to assist in the work of ridding it of impediments, but to cultivate it as well.

Mr. Lewis' work as publisher reflects great credit on him. The book is of excellent material, well printed and well bound.

The 1903 Standard Medical Directory. This publication met with a hearty reception at the hands of the profession in 1902 and the 1903 edition, now in preparation, will surpass that of last year. Active work is going steadily forward, with the co-operation of nearly 25,000 correspondents all over North America. The edition of this year will run to 1,300 pages, and will give a complete directory of physicians, societies, hospitals, sanitariums, publications, etc. The new features, which include an alphabetical index of physicians with postoffice addresses and roster of practitioners of the specialties, will, the publishers state, add about one-third to the volume of the work.

A Text-Book of Anatomy. Edited by Frederic Henry Gerrish, M. D., Professor of Anatomy in Bowdoin College. With Five American Collaborators. Second Edition. Price, Cloth, \$6.50; Sheep, \$7.50. Lea Bros. & Co., Publishers, Philadelphia and New York.

The popularity of this work is shown by the fact that two years sufficed to exhaust the very large first edition. Its convenient size, systematic arrangement and numerous illustrations, many of them colored, make it an ideal text-book for both student and practitioner.

Proudfit Fellowship at Columbia.—A new fellowship in medicine of the annual value of \$1,200, tenable for two years, called the Proudfit Fellowship, has been established at Columbia University for research work and advanced study in internal medicine.—(*Medical Review of Reviews.*)

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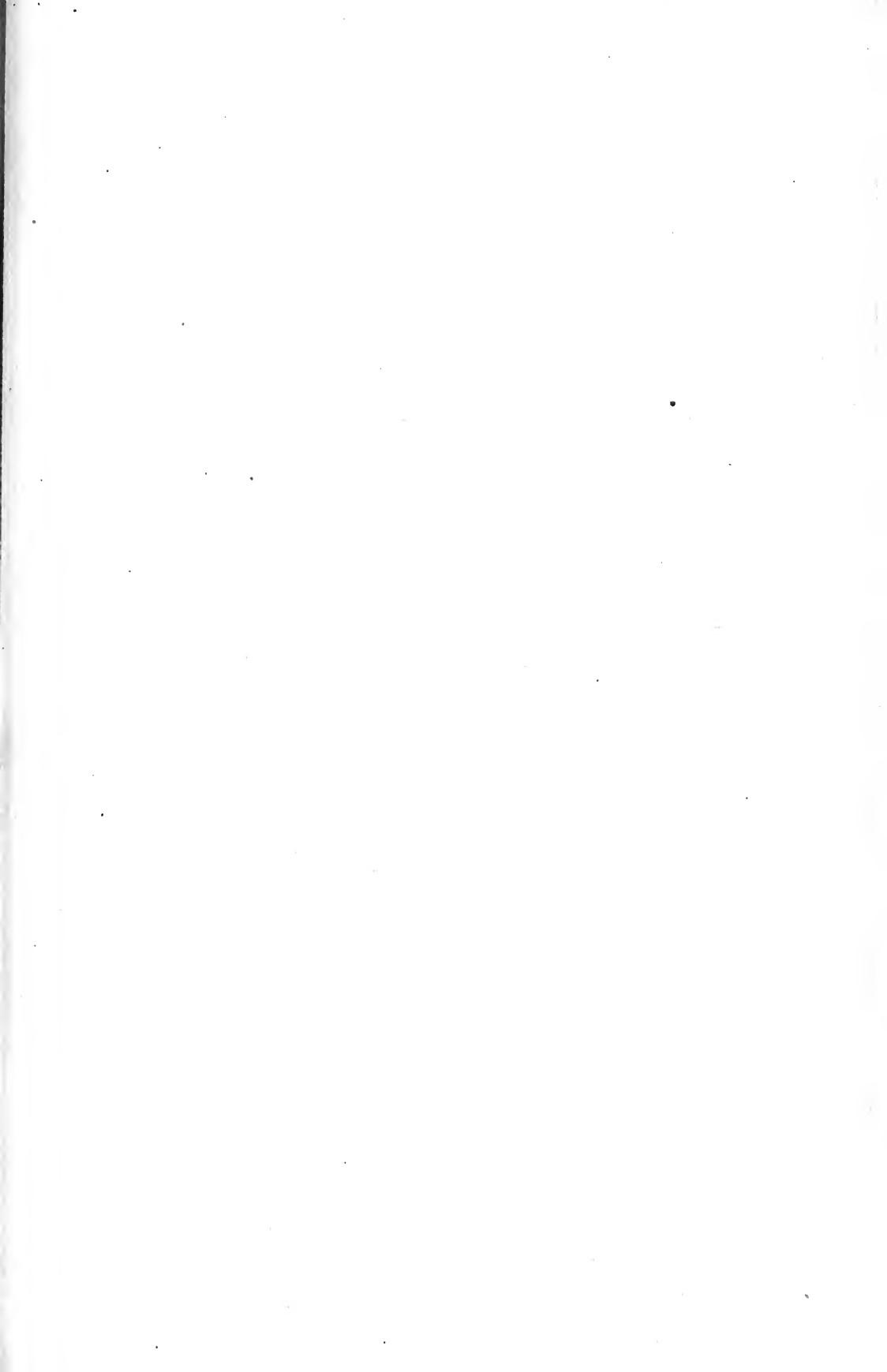
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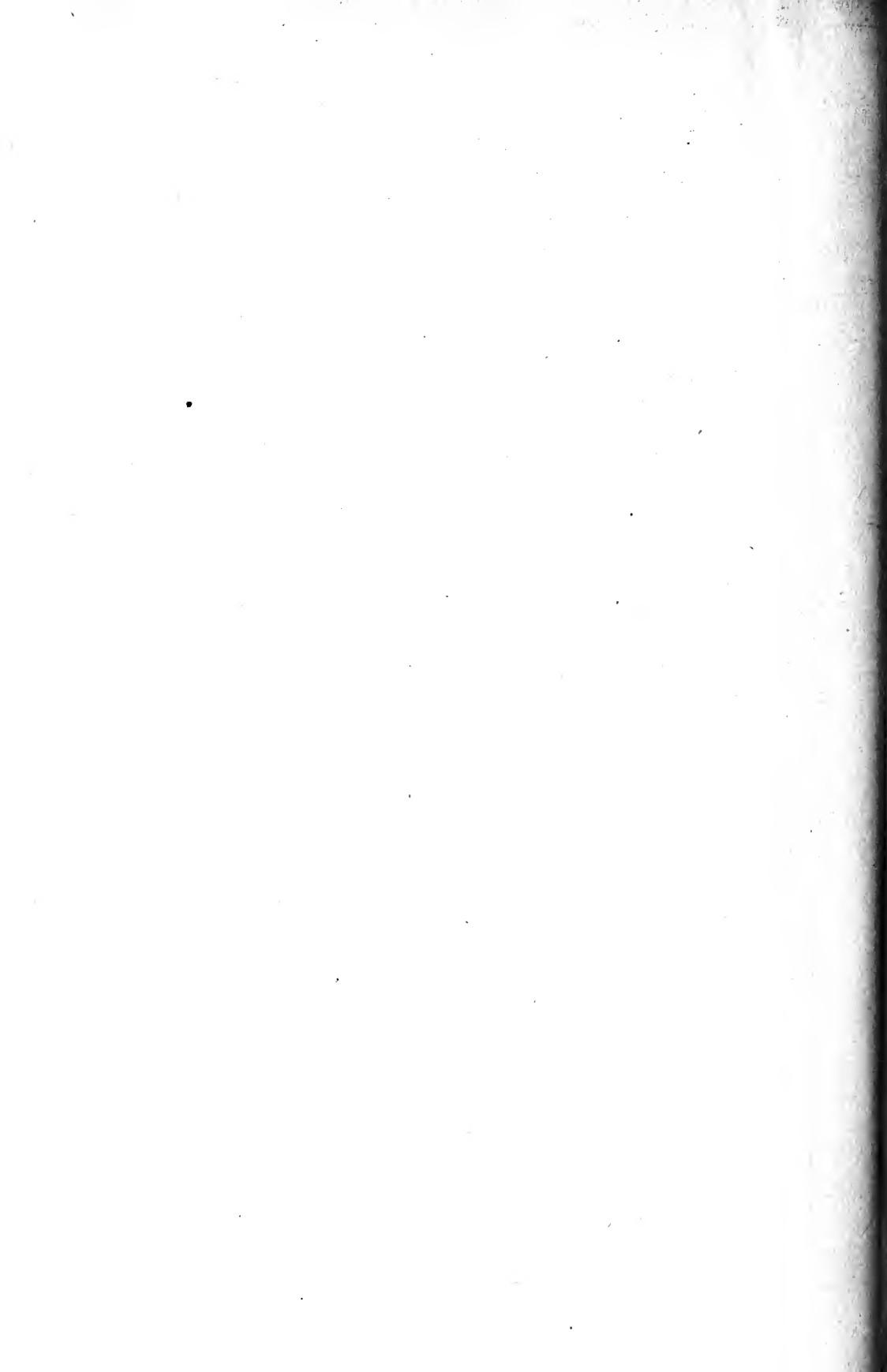
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